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Government of Maharashtra
on 26 June, 2018

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-6"' 7<:4&-"' <"B' 5<' 45' 798&' -7' 45&9' =<J-89:' 45' 4-8:<"B' :4&;:!' 64&A4' &"' 45' -=B' &?5:' 4<B' :-8>4' <""8S <==' 45' 6<59:' -7' 45' A45=B!' "-6' B&:A4<9>5B' 45&9' A<9>-5:' -"' 45' 64<9C5:' J5 655"' -"B-"' <"B' =<AD6<==' <"B' 45'>95<' ">=&:4' A-??59A&<' A-?;<"&5:' 6595' <J:-9JS &">' 45' 9<B5' -7' 45' 6-9=B!' 64&=5' 45' <:&=5:' 6595' B9<&"5B' -7' 45&9' ?<"4--B' -' 755B' 45' =<"B59:' <9?&5:' -9' B575"B' 45' ?;&95' -7' 45' 6-' "B&5:' <==&A&<!' -9 8><=!' <"B' "B<=8:&<!' 6595' :<C5B' 79-?' ;59&-B&A' 7<?&"5:' J' ">S =&:4' A-?' 45' "W8&:&&-"' & :5=7' 4<B' <' =5"> 4' J-65B' J57-95' 45' ? : 59' -7' 9-C&B5"A5' 64&A4' 4<B' >&C5"' ;=5" ' -' 4595 &A:!' <"B' "55B' <"B' 48">59' -' 985' J5S =&5C59:'' <"B' 4&=&;!' 6<&&">' 7-9' 45' &?5' 645"' 8&:5' -9' <9?<' :4-8=B' 4<C5' A-"W8595B' 45&9' 65<=4' 7-9' 45' :59C<" :' -7' 45' 489A4!' 6<:' A-?;5==5B' ?5<"64&=5' -' &"C& 5' -' 4&:' 4<9J-89:!' J' :;5A&<' ;9&C&=5>5:' <"B' 7<C-89:!' 45' &":--=5" ' :=<"B59:' 64-' J9-8>4' 7--B' -' 4&:' ;59&:4&">' :8JR5A:' 56' ?<9D5:' 6595' -;5"5B' B<&=' 7-9' 45' 7<:' &"A95<:&">' ?<"87<A 895:!' <"B' B&77&S A8=&5:' -"=' :59C5B' -' A<==' -8' 795:4' 95:-89A5:' ' 9<B5' 4<B' :;98">' 8;' 6&4' 45' <:' <9>-5:' -7' 6--==5"' <"B' 4<9B6<95' 4<B' J55"' :4&;5B' J' 45' 8:$' :&<"' A-?;<"' -' 45' 5C<!' A<99&5B' 45"A5' J' A<9<S C<":' -' :9<A<"!' <"B' 45"A5' J' 45' <:;&<"' &" -' 59:&<' 45' A-89' -7' 5"?<9D!' 5?;5B' J' 45' -;S ;-9 8"&!' 4<B' 9<&:5B' 45' -8"B' B85:' 45' A-?;<"' 95;=&5B' J' :5"B&">' 45&9' :4&;:' -' 9A4<">5=!' 5:<JS =&:4&">' 7<A-9&5:' -"' 45' 6&"<' <"B' 45' #-=><!' <"B' <D&">' ;-::5::&-"!' J' ;59?&::&-"' -7' 45' I<9!' -7' 4-:5' 6-' >95<' <9 59&5:' -7' 45' 8::&<"' ?;&95K

U 45' ;597-9?<"A5:' -7' 45' 8:$' =-:' B595A4-:' <=' 5' B5' &"<?<9A<' :&<"' A-?;<"&5:' 7-9?' 45' :8JR5A' -7' W85' =5' ;<><J<"' B5' =<:' ?59A<B59X<:' <"' 5=<J-9< 5' <"B' <B?&9&">' B5:;<A4' W85' 9<' <"' ' ==5C<J<"' Y' (-:A-C&<!' -7' (5"B-I<!' Q -:' ">=5:5:!' 45' &" 5" <9-"' "<C5><9'=<' C85= <' B5=' 9&$' 69& 5:!' Q;<9<' =&J59 <9:5' B5' "-' B<9' 5" 5';-9'5=' ?<9'>=<A&<=' Y' <" ' &A-=<:!

45 --= 55 4<B 7-9J&BB5" 45 7<& 478= -4-=B B5<=&">:6& 4 45 "7&B5=: 45 9<B5 6& 4 89D5 <"B (-9-AA- 4<B ;<::5B &" A-":5W85"A5 79-?45 5"-5:5 <"B 45 #5"5 &<":- I@-5: <" ">=<"B " ">=&:4 4-8:5 6<:5: <J=&:45B < -": <" &"-;=5 45 A<""-"! 6& 4 64&A4 8= <" ?89< 4 6<: =8@5< 5"&"77 45 4<4! 6595 A<: -7 &" <"B A-;;59 64&A4 4<B J55" B8>-8 -7 45 -9"&:4 ?&"5: 89D5 ! & 6<: 75<95B! 6-8=B 95 A4 459 79-" &59 5<: 6<9B 6& 4 ">=&:4 45=;! A-"S 9-= 45 "<C&>< &-" -7 45 59:&<" 8=7! <"B 5"B<">59 45 ;<"&:4 :5 =5?5" :&" 45 5<: 59" :5<: H

45 ;9-:;59& -7 ">=<"B! 4-65C59! 6<: 45 A95<S &-" -7 45 ;5-;=5 45 <A &-" -7 45 -C59"?5" 6<: -"= :-8"B 645" & 6<: ;<::&C5! <"B &" & : <A &C5 <:;5A :;95:5" 5B 45 :<?5 75< 895: 64&A4 A4<9<A 59&:5B & : B&;=-?<A 45 ;8J=&A ;-=&A -7 45 A-8" 9 6<: B&95A 5B! :-7<9 <: =&I<J5 4 6-8=B ;59?&! J 89>4=5 <"B /##<=:&">4<?! 64-6& 4 <B=59! (&=B?< ! "-== :!

:<=&5"B- A-" =< B&A4< "<C5><A&Z" 5" 5= <[- MM+! =< A8<= 4<" A-" &"8<B- ==5C<"B- B5:B5 <== :8:?59A<B59X<: ;-9 5= &- 8 "< Y -"=-49-B! B5 B-"B5 =-: 5"A<?&"<" ;-9 5= &- #: "&">! B5 <==&5?J<9AY"B-=<: ;-9 5= B5 8A 9<"<?! :<=5" A-" 5==<: <= &- B5 #-=><5"::5&:B&<:B5 R-9"<B<! B&: <"A&< W85 =< 4<A5 5" B-: >5" 5 B5 Y A<J<==-! 5" =-: A8<=5: ==5C<" =<: ?59A<B-9&<: ;85: <: 5" 5= B5 #-=><! "<C5><" ;-9 5= B&A4- &-<= ?<9 <:;&-;9A<"&A- <9<-;-B59 4<A59 5: <"<C5><A&Z" A-" ?<: A-?-S B&B<B 5" 95 5"&9 5= A-?59A&-! 4<" 5B&7&A<B- A8< 9-<B8<"<: A<:<: 5" =-: A8< 9-;<9=5: <& UJ< B&A4<: ;<9< ;-"59 =<: ?59A<B59X<: ;-B59=<: 5"S A<?&"<9 5" 5= &5?;-?<: A-"C5S "&5" 5 ::&?&:?-;-9 :59 5[-95: B5 =< B&A4< "<C5><A&Z" 4<" 9< <B- 5" 5B&7&A<9 8"< A<:< Y 8"< :=< W85 :5 ==<?< -=<!@ \A<==()*9'>4+ ='71 *M B5 (<-! *M3. 44 4?@A$'(3'

K @ ::&?&:?-;-9 4<J59 5?;5I<B- B5 B-:<[-:Y 5:<;<9 5=<" <C5><A&Z" W85 A-" &"]<" 5" =<C<" 5! :59=-: B5 ?8A4-798A -Y A<8:< B5 =< A<"S &B<B B5 5:<[- ;=-?- W85 ==5C<"! ?59A<B59X<: W85 ;<><" =-: 89A-: A<:& Y ;5:- B5 -9-;-9 :59 5= 5:<[- 7-9^-:-;<9< =< 78"B&A&Z" B5 =< <9$ &==59&<! 5= ;=-?-"5A5::<9&::&?-; <9< =< >8599<! <" < &?;-9 <"A&< A8<" -:5 B5L< C59! ;-9 =< 5LA-?S ?8"&-" !B *'6'3$*' W85 &5"5;85: < =< 5B5 ;-: -=&A< Y A8<=W8&59< W85 <B?&"&: 95 Z C5"B5 Y &"7&5=5: :5?5S R<" 5: A-:<: @ \A _ !) -?;<95 (5"B-I< - 4&=&;! <" 2! *M3F$ =44 4! .'(3'

5B7-9B! <"B 9-?=5 ! 6595 45 45<= 4 5=5?5" : -7
45 -8"A&= 8 J 45 :&B5 -7 45:5 6595 45 A&9A=5
*M31 -7 7<C-89& 5:! 4< 578= <: 45 ?&"&-": -7 5"9 -7
9<"A5! 64-! "- A-" 5" 5B 6& 4 ?-"-;-=&5:! 45 7<9?S
&">-7 45 A8: -?:! <"B 45 ?-95 A-??-" 7-9<&: -7
A-998; &-"! ;-==8 5B 5C5" 45 <B?&"&: 9< &-" -7R8: &A5
& :5=7! <"B --D J9&J5: -: :<C5 75=-": 79-?'$5L5A8&-" H
45 4<""5=;&9< 5:! 64- 4<B J55" 7&9: ;< 9-"&:5B
&" - B&: &"A &-" J -9B 5 ?-89 -7 8B=5 ! 4<B
>9-6": -J-=B J :5A95 7<C-89 4< 45 -AA8;&5B 45
-=5" '&"7-9A5!=5C&5B J=<AD ?<&=8;-" 45 A-<: 59:! 79-?
5=5"@: -<B: - --=5! <"B A<99&5B -" 45&9 9<B5
&"-;5" B< !8"B59 45 C59 >8": -7 45 %855"@: :4&;: <
-9 :?-8 4 (B5 H>89! 5"9 -7 <C<995@: ?J<:S
:<B-9! 4<B -6<& ! -" 4&: 95 89"! < -8 4<?; -"! &=<"
<9?5B 5:A-9 A-8=B J5 ;9-C&B5B 7-9 4&? C5" C5::5=:
= &">< 45 ;&59 4595 6595 "- :<75 79-?;=8"B59 H
45 5:;5A&<= "89:59 -7 B&:4-"5: 95?<&"5B! <: J5S
7-95! =&I<J5 4@: ;5A8=&<9 ;9-C&"A5! 45 489A4 -
=-">< <: <:&">=5 89" -7 45 6455=! <C&-=5" 95C-=8 &-"!

K =55 6--B! [illegible] 45 5A-9B59 -7
-"B-"! 69& &">- 89>4=5 ! :< :
@ (-9B! 4595 &:< :< &">! 645"
45 -89 &: 7<9 45: 79-?- "B-"!
45" 4595 &: 45 J5: R8: &A5 B-"5 &"
">=<"B - "A5 45<9B <>95< ;59S
:-"<>5 &" -77&A5! 5 =&C&">! :< 45
:<?5 6-9B: &:>9-6"7-9<9<B5
"-6&" 45 -89 -?<D5?5<":7-9
95;9&5C5: 65" ;-8"B:7-9<95S
;9&5C5 &: "- 4&">! 4-8>4 & J5 J8
7-9 5" B< :C< 8 $-**)'$* + 7 D
8 2 8= ,! *M3M C-= &&
OH 5 C-8: B&9< <8:: W85 =@5?S
J-8A4895 B5 A5 5 4<C95 5: :& J&5"
><9B ;<9 =5: ;&9< 5:! W85 4&59 8"
;<::<>&59 B5 59:5 !:5 C-8=<" ?5S
95 5" ?59! 78 H< <W8 5 A-" 95&"
B5 95" 959 B<": A5: 5 9&C&a95 5 "5
;-8C<&: ;95"B95 8">; =8: ?<8C<&:
=&58; -89 ?@5?J<9W859 W85 A5: 8&A !
A<9 =< ; =8: ;<b B5: ;&9< 5: B5 A5
;< : :-" 5" 95 @ :=5 B5 &AD 5 '"
--=5! -c &=7<8= "`A5::<&95?5" W85
R5 ;<::5 5 W85=W85: "<C&95: B5
=< - "5: 5:<" : d -9:?-8 4
B5=&C59- 5" -8 5 A5 5 A-:5 B5
A5: J9&><": W8& "5:5 A- 5" 5" B5
C-=59 A58=L W8& :-" 5" ?59! ?<&7
B@<C< <>5 C&5""5" B<": =5: 4<C95
;&==59 =5: ?<9A4<"B:5 5?5:?5: R8:
W85: B5C<" A5: 5 C&==5 W8& 5: B&
-8 B-8I5 ?&=5: B<": 5995 @_ =)E
4F7$$ '$* '8 !! 7 '$('5 3 *M! *M31
&&f H '(3 =*88 =*+

-9' 45' %855"@:' B5< 4!' ?&>4 ' ;=<A5' <' < 4-=&A' -"' 45' !
49-"5!' 45' : <J=&:45B' 489A4' 45=B' <' ?595=' A-"B&S
&-"<=' 5L&: 5"A5 ' ' 4<B' "-' 9-- ' &"' 45' "< &-"!' 7-9' *M3h
5C59 ' 5<9"5: ' ?<"' 64-' C<:' "- ' <' 89& <"' C<:' <
< 4-=&A' <"B' & :' -77&A59:!' 7-9' 45' ?-: ' ;<9 !' 95><9B5B'
45&9' 5"895:' <:' <"' - ; ; -9 8"& '7-9' 5"9&A4&">' 45?:5=C5:!'
C4&A4' 6-8=B' ;&@-J<J= ' 45' :4-9 !' <"B' :4-8=B'&"' ;98B5"A5'
J5' ?<B5' 8:5' -7' 64&=5' & ' 95?<&"5B ' 45' 6-9: ' <J8:5:'
-7' 45' 8"957-9?5B' : : 5?' 6595' 95C&C5B' -9' A-" &"85B '
5"57&A5:' 6595' &?;9-;9&< 5B' -' =< ?5"!' :-=B!' -9' <AA8S
?8=< 5B' 8;-"' 7<C-89& 5: ' 489A45:' &"' ?<" ' ;=<A5:'
C595' =57 ' 8":59C5B!' <"B' A-J=59:' <"B' <&=-9:' C595' C- 5B'
J ' 45' A-">95>< &-":' &" -' 45' ;8=;& : K
@ 45' &:4-;:!@ :<&B' 5A&=!' @4<B' "-' A95B& ' 5& 459' 7-9'
@ =5<9"&">!' >--B' =&C&">!' -9' 4-:;& <=& ' 45' &:4-;:'
@ C4-' J ' 45&9' 5<A4&">' <"B' B5C-&-"!' <"B' 95=&5C&">' -7'
@ 45' ;--9!' -8>4 ' -' 4<C5' 6-"' A95B& ' <?-">' 45' ;5-;=5!'
@ C595' >5"59<== ' A-C5 -8:' <"B' 6595' 9< 459' B5:;&:5B'
@ 4<"' 95C595"A5B' -9' J5=-C5B @H 45' 9A4J&:4-R ' -7'
-9D' 4<B' :A<"B<=&:5B' 4&:' ;9-C&"A5' J ' J5&">' 7-8"B@&"'
J5B' 6& 4' 45' C&75' -7' <"' &""D55;59' <' -"A<: 59 O

' @ "' ?<" ' ;=<A5:' 45' ;5-;=5' 4<C5'
"-' :5"B55:' < ' <==!' 48 ' <95' B9&C5"'
-' 95:-9 ' -' - 459' A489A45:' ' -9' 5=:5'
45 ' A4--:5' :-?5' -"5' 4< ' A<"' 95<B'
?5<"= !' <"B' 4< ' -77&A5' =&>4 5 4' 8;-"'
4-:5' A-"B& &-"5B' ?5"' -7' -AA8;< &-"!'
<:' <' <&=-9!' <' :4-5?&&D59!' <' :?& 4' -9'
:8A4' =&D5 @_ = ' (* !'8'*6'$ ' 4$'$ ' *6'
$ ' '8.' "' 89>4=5 @:' 4<"B!' -C'
.3!*M3M ' =44 ' 5*. $!3

V !)

O 45' 9A4J&:4-;' 6<:' 45' C&A &?'
-7' <'A-":;&9<A ' -'5L -9 ' ?-"5 ' 45'
6&75' 65" ' &" -' 4i:' 9--?' 6& 4' 459'
48:J<"B@:' A-":5" ' 45' 48:J<"B!'
6& 4' &9' -J59 ' <;=5 -"!' <' < 4-S
=&A' >5" =5?<"' -7' 45' -9 4!' 6<& 5B'
<' W8<9 59' -7' <"' 4-89' < ' 45' B--9!' <"B'
45"' 5" 595B' <"B'7-8"B' 459' 6& 4' 45'
9A4J&:4-;'&"' J5B' 45' 9A4J&:4-;'
;9-5: 5B' 4< ' :45' 6<:' "-' 4595' 6& 4'
4&:' A-":5" !' J8 ' 45' 6<:' :-'&?;98B5" '
<:' -'>&C5' 45'48:J<"B'M--7' -'4-=B'4&:'
-">85' 4&:' 6<:' "-' 5"-8>4!' 4-6S
5C59 ' 45' ?<"@:' 95;5< 5B' B5?<"B:'
J5A<?5' --' 45<C ' -' J5' J-9"5' 45'
9A4J&:4-;'9578:5B' -' &5=B' -' 45?'
45' : -9 ' A<?5' -8 !' <"B' A-??&:S
:&-"59:' 6595' :5" ' B-6"' 79-?' -"B-"'
-' 5L<?&"5' &" -' 45' A<:5' 4-8>4'
45 'B&B' "-' A-"B5?"' 45 9A4J&:4-;!'
45 ' 6595' < ' 7&9:R'!' =5:' 7<C-89<J=5' -

459' ;95=< 5:!' 7-9' 95<:-":' D"-6"' -' 45?:5=C5:!' 4<B'
J5: -65B' -9B&"<&-"' Q-"' ?5"' -7' =56B' =&75' <"B' A-9$'
*M3h Q' 98;' J54<C&-89j' 45' &:4-;' -7' &A47&5=B' 4<B' ?<B5'
:5C5" ' Q=56B' <"B' 8"=5<9"5B' ?&"&: 59:!' 7-9' ?-"5 !Q &"'
-"5' B< j' 45' 5" &95' 5"A4' 6<:' Q"-5BQ <:' <C<9&A&-8:'
45 ' 4<B' A-??5"A5B' J8:&"5::' <' 45' J5>&""&">' -7' 45'
!7('Q6& 4' <=&5"<&">' 45&9' =&C5=&4--B:' 7-9' 45' 8:5' -7'
Q 45&9' A4&=B95"!Q>&C&">' 45&9' 7<?&=&5:' 45' =<"B:' -7' 45' :55:'
-"' =5<:5:' 95"56<J=5' 7-9' 5C59' <9=&<?5" ' 4<C&">' &" 59S
7595B!' Q 45 ' >< 4595B' 65<= 4' J ' :;<9&">!Q -9' ?<B5' 45&9'
7-9 8"5:!' 6& 4' 45' 45=;' -7' 45' A-89 &59:!' QJR' &5=B&">' -'
Q ?<D5' >9<" :' -7' 45&9' =<"B:' -' 45' %855"Q:' (<R5: !
Q "-'7-9' 459' ;9-7&!' J8 Q -' J5' >9<" 5B' J ' 459' (<R5: '
Q -' 45' &:4-;:Q 79&5"B:!' :-' <:' 45 ' 6-8=B' ;<9 ' : <D5:'
Q 6& 4':8A4'<:' A-8=B' -J <&"' :8A4' :8& :' -7'459' (<R5: H'
-' 45' %855"' 45:5' ;597-9?<"A5:' 6595' "-' -7' C& <='
?-?5" ' 45' 95W8&95B' W8<=& &5:'&"' 459' &:4-.:' 64&A4'
6595' "-' A-?;< &J=5' 6& 4' 5=5C< &-"' -7' A4<9<A 59' 45'
9-5: <" :' J5=&5C5B' &"' -B!' <"B' &"' B8 &5:' 64&A4' "-'
5<9 4=' <8 4-9& ' A-8=B' :8;59:5B5' 45' < 4-=&A:' J5S
=&5C5B' &"' 45' 489A4!' &"' 45' 489A4' <:' :8;59&-9' -'
&">:' =&I<J5 4' ;9575995B' ;59:-":' 64-?' :45' A-8=B'
Q :-8"B' 79-?' 45&9' =-65:' "-5' -' 45' -;-7' 45&9' A-?$
Q ;<::!Q <"B' :45' <AA5; 5B' ?-9<=' B575A :'&"' A-":&B59< &-"'
-7':;&9& 8<=' A-?;=<A5"A ' <B' 45 ' 95?<&"5B' =&D5' 45'
A- A4' 8=A4<":!' 45 ' ?&>4 ' 4<C5' J55"' J-9"5' CB 4'H J8 '
&"' 459' 4< 95B' -7' 45' 89& <":' :45' <==-65B' 45?' -

4&?' 4<"' 45' 4<B' 4-;5B' 45'%855"!' 69& 5"' -' < 64-== ' &""-A5" ' ?<"'
4-65C59!' :--B' 4&:' 79&5"B' P=&S 8 ' 45' 9A4J&:4-;6<:' -=B!' <"B' 4<B'
?<5=' 45' 6&75' B5A=<95B' 4<' :45' ;9-J<J=' J55"' -"=' 7--=&:4 _ 5*. I'
4<B' J55"' :5'-"' J '459' 48:J<"B!' <"B' $!3' = 44 ' *M31 F -?;<95'
45' &""D55;59' <"B' <;=5 -"' 6595' ""<=:!' C-=' &&&
J-4';8"&:45B' '=5 59'79-?' <=$' Q' 5*. $!3' = 44 J*:' K@' *M3M
:&">4<?' -' 45' 9A4J&:4-;!' 6& 4' Ó (5?-9&<=' J ' -9B' &8>4=5 !'
64&A4' 45' 95A-9B:' -7' 5"W8&9 ' A=-:5!' -C' .3!' *M3M _ = 44 ' 5*. $!3
&:' "-' 5L<A = ' 64<' 6-8=B' 4<C5' J55"

&"B8=>5'&"' ;59:5A8 &-"!' <"B' -' ?&?&A' -C59' <><&"'&"' 45&9'
A-89 :' 45' &":-=5"' & &@<"" ' -7' 45' -=B' ;95=< 5:"' 45 '
6595' 5"A-89<>5B' -' 95C&C5' 45' ;9-A55B&">:' 64&A4' 4<B' *M31
7-9?5B' 45' :8JR5A' -7' 45' 7&9:' >9<"B' A-?R =<&"' -7' 45'
-8:5'-7' -??-":!'<"B'@J ' ;9<A &A5:' :<C-89&">' 9< 459'
@-7' 45' -?&:4' "W8&:& &-"!$' J '@B5C&A5:'@< 459' -' :55D'
@7-9'-775"B59:' 4<"' 957-9?' 45?!@K 45' :-65B' 45' 6&"B'
64&A4' 6<:' 95<;5B' <7 596<9B:' &"' 45' 64&9=6&"B' J '
4<9=5:' '<"B' <8B
4& >&7' <"B' 4&:' A-?;<"&-":!' 4-65C59!' 6595' "-'
98: 5B!' <:' 5!' 6& 4' C59' =<9>5' <8 4-9& ' 45' A-"S
8?5=' ?' 4' 64&A4' =&I<J5 4' 95< 5B' 45?'&"' ;8J=&A' 95S
=&5C5B' 45' <;;9545":&-":' 64&A4' ?&>4' -4596&:5' 4<C5'
J55"' 5" 59 <&"5B'-7' 459' ;89;-:5:!'<"B'&"' -459'95:;5A :'
459' -C59"?5"' 6<:' ;-;8=<95$H;-;8=<9' 5C5"' 7-9' &:'
7<8=:' 45' %855"!' 7-"B' <:' :45' 6<:' -7' ?-"5!' <JS
:<&"5B'79-?'B&95A' B5?<"B:' 8;-"' 459' :8JR5A :@ ;89:5:'
' -C595&>"' :899-8"B5B' J ' 5"5?&5:!' <"B' 4&@5< 5"5B'
k 6&4&"C<:&-"' <"B' &":8995A &-"!' ?&>4' 4<C5' 95<:-"<J=' '
B5?<"B5B'78"B:'-7' <9=&<?5"' -' ?<&" <&"' <' :<"B&">'
<9?' =&I<J5 4' ;9575995B' -' B5;5"B' -"' 45' :;-" <S
"5-8:'=- <=' -7' 45' ;5-;=5!' -'D55;' =&5' <4-=&A';-659:'
<' <&?@:' =5"> 4' J ' B&;=-?<A !'<"B' 98:' -' 9-C&B5"A5'
-9' &?5' 45' 6<:' Q 5?;&">' -B!@ &"' 89>4=5 @:'
-;&"&-"!'@J '4-;&">'8;-"' &:'>--B"5::'J ' 6< '-7'?&9<$'
@A=5'@ J8' "-4&">' 64&A4' :45' A-8=B' 4<C5' B-"5' 6-8=B'
4<C5' <:' 5775A 8<== ' A-"A=&< 5B' B&:<775A &-"' 45' 8>=' '
C&:<>5'-7' 45' <L'>< 45959' 6<:'9<95=' :55"'&"'<"' ">=&:4'
4-8:54-=B' 45' 95C5"85:'A<?5'A4&57=' 79-?' 45' 9-6"'
5:<5:' <"B' 45' A8:-?:!'<"B' ?-95' 4<"' -"5' ">=&:4'
"-J=5?<"' "-6' 95A5&C5:'<"B' :;5"B:'<'=<9>59'&"A-?5' 4<"'
&"' 45' 49&7' 4<"B:'-7' =&I<J5 4' :877&A5B'7-9' 45' B5S
?<"B:'-7' 45' 5?;&95' 5<A5'<"B';9-:;59& '?\B5'?-95

A-"C59 : -$ 9- 5: <" &:? 4<" 45 ;95<A459: "A95<:S
&"> $65<= 4 ;9-B8A5B < C<=85 7-9 :5A89& ! <"B <9B5"
< 4-=&A :W8&95:! 645" 45 7-8"B 45&9 95" : 95J=5B!
45&9 ?<9:45: B9<&"5B! <"B 45&9 7-95: : 89"5B - A-9"$
=<"B! J5A<?5 =5:: 5<>59 7-9 45 ;95:5"A5 - &"C<B&">
<9?&5: - ;<"&<9B: 45 -;5 <"B 45 5:8& : A<?5
- J5 95><9B5B 7&9: 6& 4 &?;<&5"A5 <"B 45" 6& 4
4< 95B! 5C5" J ?5" 64- &?<>&"5B 4< 45 95 <&"5B
45 7<& 4 - 45&9 7< 459: 45 %855" 4<B :8AA55B5B -
45 49-"5 J 459 7< 459@: 6&==! J A - <9=&<?5" !
<"B 6& 4 45 A-":5" - 4&=&; 4&?:5=7 59 "< 89<=
:8AA5::-9 6<: < < 4-=&A! 64-:5 A=<&?: 4<B J55" :A98S
;8=-8:= 95:;5A 5B 4- -9 64< 6<: 45 -;5 4<
45 :4-8=B ;95 5"B - B&:;-:5 - D&">B-?:! <"B :5"B
7&95 <"B :6-9B <?-"> 45&9 4-?5: 5<B:i 48: &?5! &"
64&A4 =&I<J5 4 98: 5B! 6<: :895= 6-9D&"> 7-9 459
<9 6& 4 ;<&" ?&>4 J5 8= &?< 5= &"5C& <J=5 J8 45
=-">59 & 6<: ;-: ;-"5B 45 :?<==59 45 ;<9 4<
4&=&; 6-8=B 7&"B <?-"> 459 :8JR5A : <B :45 A<95B
B55;= 7-9 45 A<8:5 - 45 57-9?<&-"! 459 ;-=&A
6-8=B 4<C5 J55" <: :4-9 :&>4 5B <: <=:&">4<? J5S
=&5C5B & - J5 J8 &" 45 :5":5 - ;957599&"> R8: &7&A< &-"
J 7<& 4 - R8: &7&A< &-" J 45 <A9<?5" :! =&I<J5 4
B&B "- A<95 7-9 & < <== (<:: -9 ?55 &"> 6595 &"S
B&77595" - 459! ;9-C&B5B ;5-;=5 6-8=B 95:;5A 45 =<6:
<"B -=59< 5 5<A4 - 459@: 7-==&5: 45 A-C5 5B "- - 459
9&"A5@: 599& -9&5:! <"B B5:&95B -"= - J5 =57 &" ;5<A5
- 5"R- 459 -6" 45 95><9B5B 45 9- 5: <" : &"
9<"A5 <"B A- =<"B <"B 45 5 459=<"B: -"= <: &"S
: 98?5" : 4< :45 6<: < =&J59 - 8:5 645" 45&9
-C595&>": 495< 5"5B 459   <" <"B <== &?5: :45
6-8=B 4<C5 ;9575995B - :55 45? :8J:&B5 ;5<A5<J=
8"B59 45&9 "< 89<= 98=59:! 6& 4 <>8<9<" 55 <><&": C&"S
B&A &C5 ;59:5A8 &-" -8=B :45 ;89A4<:5 :<75 < =&-?5

<"B'&? ?8"& '79-?'< <AD:'79-?'<J9-<B!' :45' A-":&B595B' LLL"
459'7&&E:'B8 &5:' -'J5' -'459' -6"';5-;=5'<"B' :45' 6-8=B' *M3h
4<C5'5"B895B!' 6& 4'95>95 !';594<;:!'J8'6& 4'"-'&"A=&"<S
&-"' -'&" 597595!' -':55'5C59 ' <=C&"&:'&"' 89-;5'J-8"B'
&"' 45' &>4 5:'75 59:'64&A4' 45':D&=' -7' 45' "W8&:& &-"'
A-8=B'7-9>5

-9 8"< 5=' 7-9' 45' 95:' -7' 45' 6-9=B!' 45' A-?;=5 5'
&:-=< &-"' -7' ">=<"B' 6<:' "-' ';-::&J=5' ">=&:4' 9-S
5:<" :'A-8=B'"-'J5';95C5" 5B'79-?' ?<D&">' 45' A<8:5'
-7' Q 45' 95=&>&-"'k 45&9' -6"'' 45' -;5' 9578:5B' -'
<J<"B-"' 4&:'A4&=B95"' 64-'6595'>9-<"&">'8"B59' 45' -D5'
-7' 45' ">=&:4' 5I5J5='' <"B' =&I<J5 4' 6<:' :65;!'&"'
:;& 5' -7'459:5=7!' &" -' 45' :&B5'5BB&5:' -7' 45' 89-;5<"'
64&9=;--=' 45' D5;' A=5<9' -7' 45' ?<&"' A8995" ' 45'
9578:5B' 45' ;=<A5' 64&A4'J5=-">5B' -'459'<' 45' 45<B' -7'
<' 9-5:<" 'A-"75B59<&-"'' J8' :45'J5" ' 459'>5"&8:' -'
"58 9<=&:5'6& 4'&" 9&>85' 45'A-<=& &-":'64&A4!'&"' 495< 5"S
&">' 9-5:<" &:?!' 495< 5"5B'459:5=7' <=:-' 7' :45' 6<:'
-7 5"' &":&"A595!' -7 5"' B&:4-"5:!' -7 5"' ?5<"!'459' -JR5A'
6<:'<'6-9:'?-B59< 5=' >--B!'<"B'795W85" =':8;95?5='
6&:5'' <"B' 45' B5 <&=:' -7' 459' ?<" I8C95:' ?<' J5' 4<=7'
;<9B-"5B' 7-9' 45' >5"59<=' 95A & 8B5' -7' 459' ;89;-:5'
45' <A 5B' <:' <' 6-?<"' ' 45' J9-D5' 459' 7<& 4' <:' ?<"'
A-8=B' "5C59' 4<C5'B-"5'6& 4-8'A- ";9-?&:&">'7-9' 5C59!'
<"B' &995B55?<J= !'4&:'A4<9<A 59'7-9' 4-"-89' <"B' 98 4'
' &:' &?;-::&J=5' -'755=' 5W8<=' 95:5" ?5" ' <' 45'6-9:'
<A &-":' -7' =&I<J5 4' 45' A&9A8?:<"A5:' -7'459' :& 8<S
&-"!' 459' :5L!' <"B' 45' 5?;59' 4<' 6<:' J-9"' 6& 4'
459!'J5:;5<D'7-9J5<9<"A5!'64&A4' &' &:'R8:!'&7'&' J5'B&77&S
A8=!' -'5L 5"B' -6<9B:' 459' -'D55;' 9<"A5'B&C&B5B'
79-?' ;<&"!'<"B'&7';-::&J=5'5" <">=5' 45?'&"' 6<9'<><&"'
-'5"A-89<>5' 45' 8>85"-:!'645"' 45' 95"A4' 9-6"'
&"A=&"5B' -6<9B:' -;59'' -';9-9<A' 45':98>>=5'&"' 45'
5 459=<"B:'' -' :-6' B&C&:&-"' J5 655"' H=<9' 8<9

<"B <?5:! <"B -<99< 45 A- A4 -??-":<><&": 45?J- 4'-4-=B 45 ">=&:4:8AA5::&-"8"B5 59?&"5B!

*M31$ 4< <==;<9 &5:<"B<==A-?;5 &-9:?&>4 J5 B5;5"B5" -"459;=5<:895!<"B 45957-95 95?<&"-" 45&9>--B J54<C&-89_ 45:5 6595 45<&?:-7459 B&;=-?<A "<"B :45;89:85B 45? 49-8>4;9-?&:5:<:=--:5=J9-D5" <: 45 6595 455B=5::= ?<B5!<"B 49-8>4<A-":&: 5" :59&5:-7 B5A5;&-":! 64&A4! &7;89:85B 7-9<;59:-"<= -JR5A ! 6-8=B 4<C5 J55"A<==5B B5 5: <J=5 95<A459

(<" &?5:& :55?5B<:&7 45><?5 6<:;=< 5B -8 !<:&7 9<"A5 6<: 65<9 -7 J5&">9&7=5B£6& 4!<"B 45 A- A4 9- 5: <" :-7 J5&">?<B5 8:5-7<"B :<A&&7=A5B < 459!;594<;:! 459 :<5A9<7 6<:-7=& =5 :59C&A5 -459<==59 6-?<&"5L 59"<=:8;;-9:6595 45=-">$&"459& 5B R5<=A 8: J5 655" 45=5<B&"> <4-=&A -659:!<"B 45:;&9& 64&A4 4<B J55"D&"B=5B&" 45 A-:<"B 45 5 459=<"B59: 45-65B 459:<75 -A<8:5: 64&A4 5L&: 5B &"B5;5"B5" = -7 459:5=7 <"B 459;-=& &A:! <"B 459 <9 &7&A5: 9< 459 &?;<&95B 4<": 95"> 45"5B 45?

A- =<"B<"B 45 -6 -8" 9&5:6595 ">=<"B@:C8=S "59<J=5;-&" : 7 A- =<"B 6<:&" 45 4<"B:-7 45 <4-=&A:! & 6-8=B J5 45"<=<"B&">$;=<A5-7 45 8D5 -7 8&:5 7 45 5 459=<"B:6595A-"W8595B J ;<&"! 7=55:<"B <9?&5:A-8=B J5 -9><"&:5B <=5&:895 &"45 A45=B ! 64&A4<7564-89:?&>4 9<":;-9 -45 :=5 -7 4<"5 0 - 4 45:5 B<">59:6-8=B 4<C5 J55"-JS C&< 5B J <A-9B&<= <A &-"6& 4 9<"A5 9-? 45 7&9: 4-89-7 45 95C-= -7 45 P"& 5B 9-C&"A5:! 45 -8:5 -7 #<=-&:6-8=B 4<C5 5:;-8:5B 45&9 A<8:5 &7 =&I<S J5 4 6-8=B 4<C5 B-"5 45 :<?5! <"B 6-8=B 4<C5 J55" A-" 5" -:4<95 45 :;-&=:6& 4 459!-9 ?<D5<" <9S 9<">5?5" 64&A4 :45 4<B ;=5<:5B -B&A<5 45 6-8=B 4<C5!>-"5 -6<9 <=-"5 6-8=B :45 4<C5 <==-65B

5C5" :' -' <D5' 45&9' A-89:5!' <"B' 45' 95"A4' 79-" &59' -' J5' 5L 5"B5B' -' 45' 4&"5' 8' 459' -JR5A' 06<:' -' 5" <">=5' 45?!' &"' 45' /6<9!' <"B' 5' 9-J' 45?' -7' 45' 798& :' -7' &' ">J:4'&" 595: :'7-9J<B5' 45'&"A-9;-9< &-"' -7' 5=>&8?' $6H&4 9<"A5!' <"B' <:' :--"' <:' 5C59' 45' 7&&E:' J=-E6' 6<:' : 98AD' :45' &" 5"B5B' -' ?<D5' 459' ;5<A5' 6& 4' 4&=&;' -"' 459' -6"' 59?:' 59' B&;=-?< &A' ;9-?&:5:!' 459' 95< &5:!' 459' ?< 9&?-"&<=&" 59=8B5:!' ?5<"' 4&:' <"B' -"=' 4&:

45'5<>59"5::' -7' 45' 95"A4' -89' :89C&C5B' =5"N-"@:' &==$ 95< ?5"' BC<"A5:' 6595' <><&"' ?<B5' -' 45' ">S =&:4' ?J<::<B-9'@'<7 59' 45' ?&:7-9 8"5'<' " 659;!@7-9' @'<' 8"&-"' <><&":' 45' ;<"&<9B:!@H<' 8"&-"' 64&A4' < 45S 9&"5' B5' (5B&A& 95;95:5" 5B' @'<:' 45' :-C595&>"5:' 4&">' @'4<' A-8=B' J5' 7-9' <==' 49&: 5"BA?&@' 4<B' J55"' ;95S C5" 5B' 4& 459 -!' <:' <=:&">4<?' <B?& 5B!J' 45' 75<9' 4<' 645"' 45' 6<9' 4<B' J5>8"' @'459' (<R5:' 6-8=B' ?<D5' @'459' ;5<A5' -' 45' 98&"' <"B' -C59 49-6' -7' 45' 95"A4' @' &">'@'<"B' <=:&">4<?!' 64-' <>955B' 6& 4' < 459&"5!' <BC&:5B' J&:' ?&: 95::' -' B&:<9?':8:;&A&-"' J' <' 79<"D' <"B' A-9B&<=' 95;=' JI<J5 4!' --' A=5C59' -' J5' :&?;=5' <"B' : 9<&>4 7-96<9B!' B&95A 5B' &9' B6<9B' <77-9B' -' 5" 59S <&"' 45' 95"A4' <BC<"A5:'/6&4'5"A-89<>&">':;55A45:!' <"B' @' -' :&9'8;' 45' 95"A4' &">'@' -' :<C5' 45' -6' -8" 9&5:' 8' :45' B&B' "-' ?5<"' @'459:5=7' -' J5' B9<6"' &" -' 45' 6<9@' @' 45' 6-8=B' 6<B5' "-' 789 459' &" -' 45' <A &-"'@' 4<"' ?&>4' J5' "5A5::<9' 7-9' 45' 5?;<&-"' -7' 459' >--B' J9-459' -' ;=8">5' &" -' &!' <"B' :45' 9< 459' --D' A95B&' -' 459:5=7' 7-9' ?<>"<"&?& !' 4<' :45' B&B' "-' &" 5"B' 7-9' 45' ?-?5"' @ -' <D5' <BC<" <>5' -7' 45' >-&">' ->5 459' J' 45' 5<9:' @-7' 45' 6-' ?-"<9A4:@H

H <77-9B' -' <=:&">4<?!' 5J' Mm@' <"B' (<9A4'.,$= ;9&=2_ =44' .F$(<9A4' M!' *M31 _ =44' '(3 '(3' <=:&">4<?' -' <C&:-"!' K' <=:&">4<?' -' <77-9B!' (<9A4 8"5' F$*F!' M31 '43*$8'()

48: 45 "5>- &< &-"B9<>>5B <=-">! J<995" -7 95:8= :!
64&=5 <9?<! J &" 9&>85 <"B 7-9A5! "<99-65B ?-" 4
*M31 J ?-" 4 45 A&9A=5 -7 &"B5;5"B5"A5! <"B 5"A=-:5B 45
9&"A5 -7 9<">5 6& 4&" 45 9&"> -7 45 8"&-" -7 P 95A4
">=<"B 6<: -"= :<C5B 79-? &"C<:&-" J5A<8:5 ;<&"
<"B 9<"A5 A-8=B "- A-<=5:A5! <"B "5& 459 -659 6-8=B
:87759 45 - 459 - <A <=-"5 ;<&" :&?&=<9= 6<:=57 -
6-9D & : 6&== 8;-" 45 5 459=<"B:! J5A<8:5 =&I<J5 4
6-8=B "- =5 9<"A5 ?-C5 <=-"5! <"B 6-8=B "- <A
6& 4-8 9<"A5 -9 <=-"> 6& 4 &

 4&: ?-?5" <A9&:&: 6<: J9-8>4 -c J 45 B5< 4
-7 6- ;59:-":! -"5 -7 64-?! J 4&: J&9 4! 45 - 459 J
45 >95< "5:: -7 4&: A4<9<A 59! 7-9?5B 45 4&">5: -7 45
7-9 8"5:-7 89-;5 =&I<J5 4@:=-C59 6<: 45 7&9: -> -
(-9 &7&A< &-"! <"B ;594<;: B5J<8A459 ! 6-9D&"> -" <
755J=5 A-": & 8 &-"! 4956 =5"^-"&" - <75C59! -7 64&A4
45 B&5B < 4n 5<8 4&59 -" 45 F*: -7 (< H 45
&"> -7 <C<995 6<:"-6 <A 8<== 45&9 ;95:8?; &C5_ <
8>85"- 45&9 ;95:8?; &C5 &" 9<"A5! <: 45 <4-4A
(<9 8<9 6<: 45&9 ;95:8?; &C5 &" ">=<"B 45
8&:5:! 45 5:8&:! 45 >95< :5A &-" -7 45 95"A4
"< &-" 64&A4 4<B 5L5A8 5B <"B <;;9-C5B 45 ?<::<A95
-7 <9 4-=-?56! 6595 D"-6" - 4<C5 95:-=C5B "5C59
- :8J?& - 45 <AA5::&-" -7 < 9-5: <"! <"B <;9-S
9<A 5B A&C&= 6<9 4<B 45957-95 J5A-?5 <A59 <&" 45
95"A4 &"> <"B 4&: ?-459 ;9-A=<&?5B -;5"= 45&9
&" 5" &-" -7 95A->"&:&"> 45 &"> -7 <C<995@: 9&>4 :
<=:&">4<?<BC&:5B 4&: ?&: 95:: - <D5 45 :<?5 =&"5!
<"B < -"A5 - :5"B :-?5-"5 - 4&? 6& 4 A-">9< 8=<S
&-":! <"B 6& 4 -7759:! &7& 6<: "55B5B! -7 :8;;-9

=&I<J5 4! 4-65C59! 4<B 5 -> &C5 45 =<: -8A4 -
459 95=< &-": 6& 4 45 =-: =5"^-" 45 ;8 45 -89
&" ?-89"&">! :45 :48 459:5=7 8;&" 45 ;<=<A5! <775A &">

-' J5' -C5964 5=?5B' 6& 4' :-99-6 ' 45' ⍰A-8=B' J ' "-' LLL"
⍰?5<":' J5' J9-8>4 ' -' &5=B'⍰ -' <=:&">4<?@:' :8>>5: &-"
⍰ 45' B&B' <==5>5' :45' A-8=B' "- ' =-C5' 45' &">' -7' <C<995! *M31
⍰64-' 6<:' -' :8AA55B' -"5' 64-?' :45' =-C5B' :-' 5" &&@5= @H
45' B5:A9&J5B' 459:5=7' -' (<8C&::&H95' <:' <' 7-9=-9"' 6&B-6'
64-' 6<:' 9-JJ5B' -7' 459' B5<95:' 95<:895' ⍰ 45' &:' <
⍰ 9&"A5::!@ 45'<?J<::<B-9'A "&A<== ' 95?<9D5B!' ⍰64-'A<"'
⍰<A ' <" ' ;<9 ' :45' ;=5<:5: @H ⍰ (-":&589' &:' B5<B!@ 69- 5
<=:&">4<? ' ⍰ (5=<"A4-= ' B- 4' :-' ;-::5::' 8:' <:' J- 4'
⍰;8J=&A' <"B' ;9&C< 5' A<8:5:' <95' < ' <' : < ' 7-9' <' :5<:-"@H
45' <775A 5B' :-99-6' 6<:' 98B5= ' &" 5998; 5B ' 9<"A&:'
49->?-9 -"!' <7 59' R\9:' A-"75::&">' 45' A-":;&9<A !' 45"'
B5"RB">' & !' 45"' <AD"-6=5B>&">' & ' <><&"!' <"B' 49-6&">'
4&?:5=7' -"' =&I<J5 4@:' ?59A !' 4<B' J55"' 9&5B' <"B'
5L5A8 5B ' "' 45' J<AD' -7' 4&:' ;8"&:4?5" ' <' J--D' 4<B'
<;;5<95B' &"' -"B-"!' 69& 5"' J ' -"5' -7' 45' :5?&"<9 '
;9&5: :!' A-?;<9&">' 45' %855"' -' -=-759"5:!' <"B' 5L4-9 S
&">' 45' =<B&5:' -7' 45' ;<=<A5' -' 789"&:4' <' 8B& 4' <?-">'
45?'<"B' 64&=5' :5<9A4' 6<:' J5&">' ?<B5' 7-9' 45' <8 4-9'
<"B' ;8J=&:459!' 45' 5<A4&">' 95A5&C5B' <' ;9<A &A<=' A-?S
?5" <9 ' &"' 45' <::<::&"< &-"!' A-?;=5 5B' <' =<: !' -7' 45'
9&"A5' -7' 9<">5

4955' < 5?; :' 4<B' J55"' ?<B5' :&"A5' 45' 7<&=895' -7'
<895>8 !' <><&"' &": &>< 5B' J ' 4&=&;!' -9' (=&;@:' 5?&:S
:<9&5:' " ' <=&<"!' &5 9-' -9B->"-!' 9&5B'&'&"' 45' ;95S
A5B&">' (<9A4' <' =8:4&">' ?59A4<" ' 95;5< 5B' 45' 5LS
;59&?5" ' &"' ;9&=!' J8 ' 6& 4' &P$:8AA5::' <' 95"A4'
-77&A59' 64-' 4<B' J55"' <D5"' ;9&:-"59' J ' 45' ;<"&<9B:'
-J <&"5B' 4&:' =&J59 ' J ' ;9-?&:&">' -' B-' & !' <"B' 4&?:5=7

⍰ <=:&">4<?' -' <77-9B!' 8= ' 7-9?59' A-?5' &-'=8 ';=<&: @_ = '(D'
_ = 44 ' '(3 L! $M ' '+' *2'.3' 8&==5 ' '
Ò⍰ C5A';=8:&589:'<8= 95:' 5=I' ;9-$' C-=' o&
;-I!' :5=-"' W8@5==5' 5:' 9&"A5::5' W8&' Ò <=:&">4<?' -' <C&:-"!' 8"5'
:5';58='5' :^<&' A-?;-:59' 5' 9<":S *,$.,$_ = 44 ' 43*7'()

*M31L

:5" '6-9B -' 45' 9&"A5' -' J5' -"' 4&:' >8<9B ' 45' 45-9 '
-7' 45' < 4-=&A:' 6<:' 4<' 9<">5' 6<:' 45' A4&57' A<8:5'
-7' 45' ?&:7-9 8"5:'-7' 45'7<& 4!'<"B' 4<' -' <D5'4&?'<6<'
6-8=B' J5' <"' <A' -7' ?59A ' -' ?<"D&"B ' 5'6<:'-8 S
=<65B_ <' ;9&A5'6<:' :5 '8;-"' 4&:' 45<B!'<"B' 5C59 '&":<"5'
7<"<&A!'<"B' 5C59 'J9-D5"':A-8"B95='&"' 89-;5!'6<:'=--DS
&">' 6&: 78== ' <' 45' :4-9 '9-<B' 64&A4' 6<:' -;5"' -' 4&?'
-' 4-"-89' <"B' >=-9 ' <"B' 65<=4 ' "5' <7 59' <"-459'
45 'A<?5' -' <9?<' 6&4' ;9-;-:<=:' -' 8"B59 <D5' 45'
<BC5" 895_ -"5'<7 59'<"-459' 45 '4<B' J55"'95R5A 5B' <:'
&"A<;<J=5!' -9' 4<B' 98"' 45&9'7-9 8"5'<"B' ;59&:45B '
'=5"> 4!'&"' 45' :<?5': ;9&">' -7' *M31!' 4595' A<?5'<' ?5<"!'
:4<JJ $=--D&">'=<B' "<?5B' <=4<I<9' 59<9B!'79-?'#&==5$'
7<":!' &"' 89>8"B !' 64-!'<7 59' B65==&">'7-9' 5<9:' 8RR-"'
45'&B5<!' &==' &' 4<B'J5A-?5'<'B5: &" ' -'4&?!'4<B'A-==5A 5B'
4&:' "59C5:'7-9' 45'C5" 895' <9?<'5L;5A 5B'=& =5'79-?'
4&:' <;;5<9<"A5' 5' -=B' 4&?' ?595= ' 4<' &7' 45' :8AS
A55B5B' 45' ?&>4 'A-8" ' -"' 4&:' 956<9B!'<"B' =5 '4&?'>-
<=4<I<9!' ?5<"&">'&7';-::&J=5' -'=&C5' -'5"R- '4&:';9-$K
?&:5B' 65<=4' <"B' B&>"& !' ;95:5" 5B' 4&?:5=7' <' 5=7 !'
64595' 45' 9&"A5' 6<:' 95:&B&">!'<"B' ;95 5"B&">' -' J5' <'
<=C&"&: ' 64-:5' 7< 459' 4<B' J55"' 5L5A8 5B'7-9'95=&>&-"!'
<;;=&5B'7-9'5?;=-R-"5" ' 45' 9&"A5' --D'4&?'&" -'4&:'
4-8:54-=B!' <"B' 45' 95?<&"5B' 6<A4&">' 7-9' <' A4<"A5'
-7':9&D&">' 645"' 45'A-8=B'4-;5' -'5:A<;5' '6<:':=-6'
&"' A-?&">!' 7-9' 45' 9&"A5' 4<B' >9-6"' A<9578=!'<"B'4&:'
79&5"B:' 6595'A<9578='7-9'4&?' <=4<I<9!'4-65C59!'>956'
&"'7<C-89' 45"' 45' 8D5'-7' =5"^-"' B&5B!'45'6<:'&"'
9<"A5!'&"' 45':8& 5'-7'<'>5" =5?<"'64-'4<B' J55"' :5" '
-"' <' ?&::&-"' -' 45' -89 !'<"B'45'6<:'A4-:5"' -'A<99 '
45' "56:' -' 5=7 ' 9<">5!' 5<>59' -'45<9' ;<9 &A8=<9:!'
:5" '7-9'4&?' -'4&:'J5B9--? ' 5' -=B'4&:': -9 ' 5&">'
8"<9?5B' 45'A-8=B' 45"' B-' "-4&">!' J8 '45'4<B' ><&"5B!<

?-95' A-"7&B5" &<=' 7-- &">' -' -' J5' 8";9-C&B5B' <' :5A-"B' &?5!' 45'J-8>4 ' <';<&9'-7';&: -=:!' 64&A4' 45' A<99&5B' <=6< :' A-"A5<=5B' <J-8 '4&?'<"B'<756'B< :'<7 59!H'<:' 45' 9&"A5'6<:';<::&">'79-?'4&:'B&"&">$9--?!'45': 5;;5B'79-?' J54&"B'<';&==<9'-"' 45': <&9A<:5!'<"B'7&95B' 4955';-&:-"5B' J<==:' &" -' 4&:' J-B ' 45' <&?'6<:':895!'<"B' 45';-&:-"' 6<:' 8""55B5B ' 45' 9&"A5'75==!' 6<:'=&7 5B' J<AD'&" -' 45' 9--?' 64&A4' 45' 4<B'R8:'=57 !'<"B' B&5B'&"'<756' ?&"8 5:' <= 4<I<9' J-8"B5B' -8 ' -7' 45' 4-8:5!' <"B' 4<B' 95<A45B' 45' -6"' 6<==' &:' ;<"&:4' A-8" :4&;!' J9-<B' =<"B:!' <"B' 45' -9B59' -7' ' <>-' 6595' <=?-:' $:C& 4&"' 95<A4'J8' 45' 6<:' "-' W8&AD' 5"-8>4' 5' 6<:' A<8>4' <"B' B9<>>5B' -' 45';9&:-"' 45';5-;=5'5L;5"B5B' 45&9'B5:;<&9'8;-"' 4&:' ?&:59<J=5' A<9A<:5' 45' 7=->>5B' 4&?' 6& 4' D"- 5B' A-9B:' 45' A8' 4&:' 7=5:4' 6& 4' :;=&' W8&==:' 45' B&;;5B' 4&?' &"' :<=' 6< 59!' <"B' 69<;;5B' 4&?' &"' <:4&9' :-<D5B' 6& 4' C&"5><9' <"B' J9<"B ' 5' B57&5B' 45?' &">5S "8& ' 5' -=B' 45?' 4<' 45' 4<B' D&==5B' <' C&P<&"' 64-' 4<B' A<8:5B' 45' B5< 4:' -7'4<=7' <' ?&==&-"' -7' ?5"' 4<' 45' 6-8=B' :--"' J5' <' :<&" ' &"' 45<C5"!' <"B' 6-8=B' 4<C5' 45' 7&9:' ;=<A5' 4595' "5L' -' -B' 45' =57' 4&?' 7-9' <"&>4' &"' 4&:' ;<&" ' "' 45' ?-9"&">' 45' 695"A45B' 4&?' -"' 45' 9<AD!' 45' ;=8AD5B' 4&:' 7=5:4' 79-?' 4&?' 6& 4' 95B$4-' ;&"A59:!' 45' -9 895B' 4&?' -' B5< 4' J' &"A45:' -7'&"7&"& 5' <>-" ' 45' 7<&" &">' 695 A4!' ;-&" &">' <' 4&:' J-B ' ?' 4&:' 795"I !' :49&5D5B' -"= ' AA5' -?-H

-9?5" 'A-8=B' "-' J95<D' 45' :;&9&' -7' 45' ?89B5959!' "5& 459' A-8=B'&' J9&">' J<AD' -' 7&75' 45' &==8: 9&-8:' ;59:-"' 64-' 4<B' J55"' 45' J8=6<9D' -7' =&I<J5 4@:' 49-"5' (899<' &"' A- =<"B!' -=&>" ' <' <9&:!' <"B' "-6' 45' 9&"A5' -7' 9<">5!' 45' 4955' A4<?;&-":' 64-' 4<B' J5:

K' 8"5'.N$ 8='N! ?89B595B' 45' 9&"A5' -7' 9<">5!
K' 8"&:4?5"'-7' 45' 9<&-9' 4<' 8='1$*1!'*M31 _ =44' *88'() *M31

LL"

M3h 8=

B575"B5B' -B@:' A<8:5' <"B' 459:!' 4<B' 7<==5"' <==' &"' 45' :<?5' 6< !' <"B' 45' <8>89 ' -' 459:5=7' 6<:' 79&>4 78=' "' ;<9 !' --!' & ' 6<:' 459' -6"' 7<8= ' <B' 4595' J55"' <' 9-S 5: <" ' 5<>85' &"' 89-;5!' 4<B' <==' 45' A-8" 9&5:' 64&A4' 4<B' 95C-= 5B' 79-?' 45' 55' -7' -?5' J55"' A-?;<A 5B' &"' -9><"&:5B' 8"&-"!' 4595' 6-8=B' 4<C5' J55"' =5::' 5?; < &-"' -' <::<::&"< 5' &"B&C&B8<=:' 64-:5' ;=<A5:' 6-8=B' 4<C5' J55"' &?? 5B&< 5= ' 7&==5B ' 45' <"B' -"= ' :45' 4<B' ?<B5' <' A-"S 75B59< &-"' &?;-::&J=5 ' 45' 4<B'=57 ' 45' 57-9?< &-"' -' J5' ?<&" <&"5B' J ' 45' B&:8"& 5B' 577-9 :' -7' <' 756' 459-&A' ?5"!' <"B' 45' 5"5? ' A-8=B' 4-;5' <=6< :' 4< ' 45 ' <=-"5' 6595' 45' -J:<A=5:' -' 45' 95A-C59 ' -7' 45&9' B-?&"&-" 7' =&I<J5 4!' 4-65C59!' 4<B' A<8:5B' 45' B<">59!' :45' <=:-' :4<95B' & ' &"' 459' -6"' ;59:-"!' <"B' &"' 45' 4&>45:' B5>955' 4p-' :&">=5' =&75_"-' 45' =&75' -7' 9<">5' 4&?:5=7_ 6<:' -7' :-' ?8A4' ?-?5" ' <:' 459:!' <"B' 45' 9&:D' -' 64&A4' :45' 6<:' 5L;-:5B' 4956' ">=<"B' &" -' <"' <>-" ' -7' <;;9545":&-" ' 45' A<95B'=& =5' 7-9' 459' -6"' ;59:-" ' 45"' <"B' <=6< :' :45' 45=B' 459'=&75' :8;95?5= ' A45<;' 8 ' :45' 6<:' : <9 =5B!' <:' :45' 4<B' J55"' : <9 =5B' 645"' (899< ' 6<:' ?89B595B!' -8 ' -7' 459' ;--& &A<=' =<">8-9 ' -' =-">' <:' 9<">5' =&C5B!' :45' D"56' 4< ' 45' 6-8=B' 7&>4 ' -' 45' =<: !' <"B' :45' 4<B' J55"' A-" 5" ' -' ;9-7& ' J '4&:' 95:--=8 &-"!' <"B' =5<C5' 4&?' -' 4&:' -6"' 95:-89A5:' -6' & ' :55?5B' J8 ' --' =&D5= ' 4< ' 45' 9-C&"A5:!' 4<C&">' =-:' 45&9' A4&57!' <"B' :55&">' 45?S :5=C5:' <;;<95" = ' B5:59 5B' J-4' J ' 9<"A5' <"B' ">=<"B!' 6-8=B' >&C5' 8;' &"' B5:;<&9!' <"B' =5<C5' 4&=&;' 7955' -' :5 =5' 4&:' <AA-8" :' 6& 4' 459:5=7 ' <B5' 6<:' B&:;< A45B' &"' 4<: 5' -' 45' <>85!' -' ;95C5" ' <' 4<: ' 95:--=8 &-" ' &9' 4&=&;' &B"5 ' 6<:' -' 4<C5' >-"5' -' 9<"A5' -' A-"B-=5' -"' =5"N-"@:' B5< 4!' <"B' -' A<99 ' 45' <9 59' -' 45' &"> ' -' 45' 4-"-9<9 ' ?&::&-"' <' ;--=& &A<=' &": 98A &-"' 6<:' < <A45B' -' <AA5;' 45' 95"A4' ;9-;--:<=' 7-9' R-&" ' <A &-"' &"' 45' -6' -8" 9&5:!' <:' <' 4&">' @ 64&A4' A-8=B' "-' =-">59' J5

LLL"

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8=

6<: ;5975A = 985 45 ;9- 5: 5B! J8 (<8C&::&a95 :&=5"A5B 459 B5"&<=: 45 4<B <&?5B - "= ! <: 45 ;9-C5B! *M31 < ;9- 9<A &"> &?5 45 4<B :456 "" <" <J:-=8 5 B&:95S ><9B -7 459 6-9B 45 4<B :-8>4 "- 4&"> J8 459 -6 " &" 595: :! 645 459 4-"-89<J= -9 B&:4-"-89<J= :45 B&B "- :55? -A<95! <"B 9<"A5! 45 :<&B! A-8=B J5=&5C5 459 "- =-">59

45 4<B! &"7<A ! <: <=:?>4<? -=B <77-9B! ?>9-6 " ? -4<=7 <95:-=8 &-" ? -<A : 9<&>4 7-96<9B= <"B 45 : <5 -7 ?&"B 6<: :- 8"8:8<= 6& 4 459 4< :45 ?&: --D & 5<:&= 7-9 <:5 =5B ;89;-:5 45 <::895B 45 ?J<:S :<B-9! -" 459 6-9B -7 4-"-89! 4;! &7 9<"A5 6-8=B "-6 95= 8;-" 459! <"B :5"B <" <9?q&" - 45 5 459=<"B:! 459- rs &"<C :4-8=B >- - 45 5: "B&5:<"B A<; 895 -9 B5: L@- 45 >-=B 7=55 :

45 6<: :- ;-:& &C5 4< :45 &" ;<9 <=D5B B-6 " 4&: B&: 98: 5 ><C5 459 :-?5 7<&" 4-;5! 4-8>4 "- ? 8A4 5 -=B &B"5 4< &7 45 65" - <9&:<7 59 <=! 45 6-8=B 7&"B & 4&: &" 595: - J5 79<"D J8 45 E578:5B 7-9 4&?:5=7!! - J5 45 &": 98?5" -7 789 459 "5$ >% &< &-" 5 4<B 7-8"B :- ?<" A4<">5:&" ">=<"B 45 :<&B! :- ?8A4 8"A59 <&" ! :- ?<" <9 &7&A5:! "- - A<== 45? J 45 4<9B59 "<?5 -7 =&5:! 4< &7 <=5<>85 6<: - J5 ?<B5! - 459:! <"B "- 45! ?8: J5 45 &": 98S ?5" : -7 & H 4595 6<: "- &?5 - J5 =-: =B5$ >-"B5 69- 5 79-? " 659; 4< 8"=5:: ">=<"B -9 9<"A5 &" 5&&H-:5B! 45 A<8:5 -7 45 < 5: 6<: 95<== =-: 4< <9?<-77595B 5<: 59?:! <"B 4< 45 4<B J8 - :8J?& 7-9 <== - J5 7-9>- 5" ->59 &==&<?:! <" ">=&:4 -77&A59 &" 45 < 5: :59C&AB! A-"7&9?5B =B5>-"B5 7 45 -==<"B59: :<6 4< ">=<"B 6-8=B

* <=:&">4<? - <7 J9B! 8= 78::5" <;;5=`5: 9-?;59&5:! B-" R5 +82 *, _., _ = 44 '(3 "5 C-8=-&: ;=8: 5: 95 ?&"&: 95'@_ 1 E(<&: W85 ;<9 B5^d &= <C-& = '+L! !M '+ *2 *3$$.3 8&==5 9-; B@<9 &7&A5:! 7&"5::5: 5 C<9&< &-":! '8' !(=M *3$.3 - t ! =5:W85==5: d =< 7&"! R5 A9;&>"-&:! "5 ! -=' &&&

"- 45=;' 45?! 45 6595 &"' <' 48?-89 -' &":&: -"' ;5<A5 H

7 59 45 :8J?&::&-"' -7 45 <5:! &' 6<:' W8& 5 A59 <&"' 4<' ">=<"B@:' 89"' 6-8=B A-?5 "5L' <""<! 8&:5! <?5:! -;5! 5:8&:! <;&: :_ <==' 6-8=B 7<==' -"' =&I<J5 4 ->5 459!' 6& 4 95:8= :' 64&A4 A-8=B 4<9B=' J5 B-8J 78=

4595 6<:' 45 -=B 8"A59 <&"' 645 459 45 ">=&:4 "<&-"' 6-8=B <;;9-C5 -7 <"' <>>95::&C5 6<9! -7 45 95<S :-":' 7-9 64&A4 ?-:' -7 45?' ?&>4' J5 &>"-9<"' 45 -=B =5<>85 6& 4 ;&"' 6<:' :&==';-;8=<9 6& 4 45 A-8" 9' ;<9 !' <"B ;<"&<9B:' 6595 "-6 45 J5:' A8:-?59:' 7-9 ">=&:4 6<95:' <9=&<?5"' ?&>4' 9578:5 :8;;=&5:! <"B 45 6<9!' <7 59 J5&">' A-??5"A5B!' ?&>4' 4<C5 -' J5 <J<"$% B-"5B' 5' 87>4=5M:H!' 64-' 4&?:5=7 B956-8' 45 -JR5AS &-":' &"' 45 :9-">5:' 7-9?!' A-":&B595B 45?' 65<D59 4<"' 45<9>8?5":'7-9'5"59>' 5 45=B&' %=5::' ;59&=-8:' % -' 5"A-8" 59 45 5"5?' <J9-<B <' 45 :&B5 -7;-65978=' % <==&5:' 4<"' -' 6<&' -' ?55' 4&?' :&":9=5$4<"B5B <' 4-?5 % 6& 4 <' ;&&-:;5A' -7 95J5==&-"' <' 4&:' J<AD @H 5:95A-?S ?5"B5B 45 %855"' -' A-?;=5 5 459 4<=7$7-9?5B;89;-:5! <"B <' -"A5! <"B!-"' <==' :&B5:! "59C5 459:5=7 7-9 45 :98>S >=5' -' A<==' <9=&<?5"! <"B 49-6 459:5=7 45<9 &=' -"' 45 =- <=' <"B <BC&A5 -7 459 ;5-;=5" -' A-??8"&A< 5 6& 4 45 &">' -7 <C<995" -' :;<95" -' 5L;5":5&"' A-"A&S =&< &">' A- =<"B <"B & :' &">' <"B =<:=! <:' 45 =;4< <"B ?5><! -' 95?5?J59 4<' 4595 6<:' :-?5 4&">' &"' 95=&>&-"! 4<' &' 6<:' "-' <' ?595 &B=5 6-9B! <"B 4<' :8JR5A :' C5==' 98=5B! <"B <8>4' -' 75<9 -B! 6E$595 45 :-C595&>"@:' J5:' :8;;-9 :' &"' &?5 -7 B<">59 H

H' =B5>-<B5 -' <=:&">4<?! K -":&B59<&-":' -"' 45 B5< 4 -7 8=' ..$ 8>' ' ->59 &==&<?:' 45 9&"A5 -7 9<">5! *M31$ _ &P E E' -' <=:&">4<?! 5;' 1$*1 _ =44' *88'() *88'()' @ :!)

*M31

N O & L"

*M31

" 4&:' A<:5 :45 6-8=B 4<C5 -' 7<==' J<AD <7 59 <==' -" 45 B5:;&:5B Q J9- 459:' &"' 49&: @ 45 ;&==' 6-8=B J5 <' J& 59 -"5! <"B <=:&">4<?' A-":&B595B 4<' :--"59 =&<"' :8J?&' -' & _ :--"59 4<"' <J<"B-"' -"A5 <"B 7-9 5C59 459 7&BB=&">' ;-=&A _ :45 6-8=B ;95759! @ 8"=5::' -B @ -;5"5B 459 5 5:' -':55 64<' 6<:' J5:' 7-9 459 <5!@ -' :55 5=>&8?' J5A-?5';<9' -7 9<"A5 H

4<' :45 6-8=B B-' B5;5"B5B -"' 45 :8AA5::' -7 <795:4 &" 9&>85 64&A4 :45 4<B -;5"5B <' 45 A-A4 -89 ' ';9-?&:5:' 64&A4 :45 "5C59 ?5<" ! -' 78=7&=' :45 4<B 5?;5B ">8:' <"B (<9 <"B -69&5 &" -' A-":;&9<A ' -69&5@:' 45<B :--B J ' 45 :&B5 -7 (-9S -"@:!' <"B ">8:' <"B (<9 <"B 45 9-5: <" ' ?&"&: 59:' 595 &"' 5L&=5!' <"B 5C59 ' 9&5B 79&5"B -7 459:' <"B -7 ">=<"B 4<B J55"' J<"&:45B 79-?' <?5:@:' ;95:5"A5

:'4<:' J55"' <=95<B ':<&B!' 4-65C59!' <';<9 '4<B 7-9?5B & :5=7 <' 45 A-A4 A-89 '&"' &?& <&-"' -7 45 ">=&:4 L!'' .)!' '-7 64&A4 45 <9=' -7 99<"' 6<:' 45E45<B <"B 95;95:5" <&C5' -9>5B <=&D5 6& 4 4-';=8"B59 -7 <?&=S -":' <"B -8>=<:5:!' 45 95&>"&">' 7<C-89& 5 B95<B5B 5W8<==' J-4 <4-=&A <"B 9-5: <" ' 5 6<:' <79<&B -7 45K 95 89"!' <79<&B 5C5"' -7 45 95=5<:5' -7 (<9 ' 8<9 ' 5 ;9575995B 4<' :45 :4-8=B 95?<&"' 8"B59 <A=-8B &"' ">=<"B!' <"B 45 4<B J9-8>4 ' <?5:' 5" &95=' -' <>955 6& 4 4&?' 4595 6595 48:' ?<" ';-&" :' -7 :?;<4 !' "-6& 4:<"B&">' -69&5@:' -C59 49-6!' J5 655"' 4&?' <"B 45 %855"' -7 ">=<"B!' <"B -' 4<C5 98&"5B 4-:5 64-' 4<B 4& 459 -' J55"' 459 :<8"A45:' :8;;-9 59:' 6<:' H"-' "5A5::<9&=' -' W8<995=' 6& 4 459:5=7' -4 45 &">' <"B =&I<J5 4 B5 5:5B A-A4 9-5:<" &:?' ' 6<:' <"' 8"?<"<>5<J=5 7-9A5!' 8"<C<&=<J=5 7-9 9&AD:' -7 ;-=&A !' :9<&>4 7-96<9B!' B&95A !' <"B B57&<" ' -' A98:4 4&:!' 5' 6& 4-8' <;;5<9&">' <J:--8 5=' -' W8<995=' 6& 4 95$

=&>&-" -<;;9-<A4 45 <4-=&A:! 5 6& 4-8 :8J?& &"> -45 --;5 -95 <&" J&:&"B5;5"B5"A5<"B4-=B4&?:5=7 ;95;<95B7-9<" 5C5" _ 4&:6<:<A-89:5 64&A4<-"A5 :8& 5B 99<"@:<C<9&A5!<"B <?5:@:A-"A5;&-" -7;-=&S &A: 45 -JR5A -<?5:6<: -<D5 :8A4<;-:&&-"! 4< 645 459 4595 6<:<<4-=&A95C-=8&-" -9645 459 45 57-9?<&-" 45=B&:>9-8"B! 45 ">=&:4 :8AA5::&-" :4-8=B: &== J5 -;5" -4&? &:;=<"! 45957-95! 6<: -7-==-6 45 9-<B 64&A4 4<B J55" -;5"5B J 5"" -L! -7-9A5 J&:4-;:8;-" 45 &9D! -" 45 59?:-"64&A4 45 6595 5: <J=&:45B&" ">=<"B! <"B -?<D5 4&?:5=7 45<B -7 45 489A4 -" =&I<J5 4@: ;< 59" 48: ;95;<95B 45 A-8=B 6<& 8;-"$ 7-9 8"5 7 ">=<"B 6<: A-"S W8595B J 45 <4-=&A -659: 45 A-8=B ;=5<B 4< 42 4<B B-"5 4&: J5: -B5: 9- $ <=C&"&:? 7 =&I<J5 4 45=B 459 >9-8"B! 45 ?&>4 ;=5<:5 459 J &?&<&"> 459 5L<?;=5_ ;594<;: 5?;459 -?<99 4&?!H&"B8A5 459 < <" 9< 5 -95A->"&:5 4&?<: 459 :8AA5::-9! -45 5LS A=8:&-" -7 4&: ?- 459! <: 45 ;9&A5-7 45 A- A4<==&<"A5 6<:<><?5 --?8A4<7 59 =&I<J5 4@:-6" ?5 4-B "- -<9<A <"B &" 595: 459 6<: :-?5 4&">! < <" 9< 5! -5" 59 <&"! -4<"B=5! <"B -;=< 6& 4 E 45 -8"> &"> 65" C&>-9-8:= 7-96<9B 7 59 -69&5@: 5L5A8 &-" < <9=&<?5" 6<: A<==5B < B&"S J89>4 64&A4 ><C5 45 9-6" :8;95?5 5AA=5:&<: &A<= R89&:B&A &-"! 95;=<A5B 45 &:4-;:! <"B 7-9J<B5 45 5"59<= ::5?J= -?55 8"=5::8??-"5B J 69& 45 ?<>&: 9< 5: 6595 A4<">5B 49-8>4-8 45 A-8" 9 45 <9= -7 99<" 6<: ?<B5 4<"A5==-9! <"B <A-??&:S :&-" :< 5! -7 64&A4 45 6<: 45 45<B! -B5;9&C5 5C59 ?&"&: 59 64- 6-8=B "- :8J?& -45 &"> <"B 4&: B&-A5:<" 45 "5L :5; 6<: -?<D5 -C59 895: -

@ Q &: 985 4< 45$6--&"> ?< 59 J8 7-9 B<==&<"A5 C<)8)(7 '.$*
&: :5 <J9-<B! J8 $65 4-=B & 4595 5'L! *(8= = 44 43*$8'()

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$% &

">=<"B 45 ; -=& 5"5: : 64&A4 6<: 5L 5"B5B :8BB5"= -
45 ">=&:4 ?J<: :<B-9! <C&:-"! 4<: J55"' :55"'
<=&@5<B ' &"' (' -" 5"< @: =5 59 ' <?5: 69- 5 - 45
%855"! 64&=5 99<"' <BB95: :5B 4&?:5=7 - -9B 8":B-"!
6& 4 64-?' 45 4<B <' ;59:-"<= <AW8<&" <"A5 ' 5 6<: <'
"- -9&-8: :A-8"B95=! J8 ' 8":B-"' 8"B59 --D 7-9 4&:
:&"A59& ' 45 %855"' 459:5=7 A-":&B595B 4< ' <' B8K '
4<"B 6<: J5 59 4<"' "-"5! <"B 4< '&7 :45 A-8=B :5A895
A- =<"B <"B D55; < ?5: <; <9 ' 79-?' 4&: ?- 459! :45
A-8=B B&:;5":5 6& 4 45 7-95&>"' <==&<"A5: <"B =5<C5 45
5 459=<"B: - 45&9 7< 5 ' C5"' 89>4=5 ! &"' B5:;<&9 -7
5C59 :55&">' 459 <::8?5 <"' 4-"-89<J=5 < & 8B5! 6<: &"S
A=&"5B - C5" 895 45 5L;59&?5" ' <=:&">4<?' 6-8=B
4<C5 "- 4&"> - B- 6& 4 & ! <"B =--D5B -"' A-" 5?; 8S
-8:= H A
' 6<: B5A&B5B 4< ' 8":B-"' :4-8=B >- B-6"' -
A- =<"B! 4<C5 <"' &" 59C&56 6& 4 99<"! <"B '45<9 64< '
45 4<B - ;9-;-:5 ' -" 5"< @: <==8:&-"' - -"5 -7
45 <95 : <: <; -::&J=5 6&75 7-9 45 &">' -7 A- :!
5L;=<&":' 8":B-"@: &" 595: '&"' 45 &" 9&>85 ' :55?:
<: &7! "- 6& 4: <"B&">' 4&: C-8A459: 7-9 99<"! 45 :498"D
79-?' ;59:-"<= A-" <A ' 6& 4 4&? ' <=:&">4<?' -77595B
- J5 ' 4< ' 99<"' 6-8=B -C5995<A4 4&? H 5 4<B "- '
=&D5B 4&: A-??&::&-"!! <"B =&I<J5 4 4<B "- ' ?5"B5B
?< 59: J ' :65<9&">' < ' 4&?' <"B 495< 5"&">' 4&?' 6& 4
45 : -AD: ' Q 5&">' 6& 4 45 %855"' 5: 59B< ' <7 59$
Q "--"!@ 69- 5 &9 -J59 ' <95 ' - 4&: 7< 459! Q <: :45
Q 6<: < ' A<9B: &"' 45 ;95:5"A5 A4<?J59! :45 A<==5B ?5
Q <"B <:D5B 645"' -8 6-8=B J5 -77 - 596&AD ' :<&B

E Q -8A4&"> 45 J 5 A-89:5 J5S 655"' 8":B-"' <"B & <"! 4595 &: "- 4&"> -'45=;'& 'J8 ' &?5' <"B 9&<= -8 D"-6 8":B-"@: ;<::&-"! 64-:5 ;9-L&?& '&"' J=--B B-4 :-?564< ' ;95C<&=- -5"<J=5 4&: A95B& ' - ?-95 4<9?' 4<"' >--Bj' "B 5 ' 4595&"' 45 :4-8=B "- ' 7 '$82';95C<&=! 6595 45 "- ' A-8" 5"<"A5B! J ' 45 -9B 95<:8959! 64- B5<=: : &&<">-= ' &"' 45 <A &-"' -7 A- =<"B @_ '8!(7I ' .'$*'5'L! *(' 8= ' *1$.. ' =44 ' :!)

K (<8C&::&595 - 45 &">' -7 9<"A5! 8= ' ' C-=!

&&&

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8A98:

@ -8' $6-8=B' J5>&"' -89'R-89"5 ' :--"' <7 59' 4& :8" &B5
@ 45' -$956' &" -' <' >95<' 9<>5!' J5>&""&">' $6& 4' u' -B@:'
@ $6-8"B:!v' :45' $6-8=B' :5' -8' J ' 45' 755' <"B' :5"B'
@ <"- 459'&"' -89' ;=<A5'&7' -8' B<==&5B' 6& 4' 459' 48:_ :45'
@ $6-8=B' "-' 48:' J5' B<==&5B' $6& 4<= H

8":B-"!' 64-' 4<B' :-?5 4&">' -7' 4&:' D&":6-?<"@:'
5?;59!' 5"A=-:5B' 4&:' :-"@:' =5 59' -' 89>4=5 !' :< &">'
@ 4<' 45' A-8=B' "-' J5<9' :8A4'=<">8<>5' "-9' -J5' &"' :8A4'
@ :-9' <:' :45' A-??<"B5B@ 45' <77<&9' 6<:' 4<">&">' 48:'
&"' :8:;5":5' <' 45' &?5' 4<' 45' "56:' <99&C5B' -7' 45'
?89B59' -7' 45' 9&"A5' -7' 9<">5' 45' :?<==' <"B' ;<= 9'
?<"?8C9&">' 6<:' 7-9' 45' ?-?5"' =<&B' <:&B5!' <"B' <=$
:&">4<?!' $6& 4' 89>4=5' "-6' <' 4&:' J<AD!' 4<=7' :8AA55B5B'
&"' ;59:8<B&">' 459' -' =5<C5' 459'@;<9 &<=' ;9<A &:&">!@A-"S
:5"' &"' 5<9"5:' -' 45' =5<>85' 6& 4' 9<"A5!' <"B' ;9-C&B5'
-;5"=' 7-9' A- =<"B'&"' <A=<8:5' -7' 45' 95<' ' ?&>4'
&"C-=C5' 45' 95=5<:5' -7' ws <9' 8<9!' $:C&4' <?5:' 7-9' <'
>8<9<" 55' -7'459'>--B' J54<$CB-89'J8'<" 4&">' 6<:' J5 59'
4<"' B5:59 &-"' -7' 9&5B' 79&5"B:' <"B' ?5<"' <==&<"A5:' 6& 4'
:8J =5' :A-8"B&K5=:' (<9' 8<9@:' B5 5" &-"' 4<B'=-:'& :'
&?;-9 <"A5' 645"' 459' :-"' J5A<?5' -7' <>5' <"B' 6<:' <'
=<9>5' <=:&">4<?' 6-8=B' 4<C5' 4<B' 45' %855"' :5"B'
(<8$C&::&595' -' 457=\5=B!' -' -7759' 45' %855"' -7' A- :'
=&J59' <"B'95: -9< &-"' -"' A-"B& &-"' -7'459'R-&"&">' ">S
=<"B' <"B' 9<"A5'&"' 45' =5<>85' <><&":' ;<&"!' <"B' 6-8=B'
4<C5' =57' 45' ;<= 9' J-' <' B&"J89>4' -' B&>5:' 4&:' B&:S
A-?7& 895' <' 4&:' =5&:895

' ?&>4' "-' J5' =&I<J5 4' "5C59' A4-:5' <' :9<&>4
9-<B' 645"' <' A9--D5B' -"5' 6<:' -;5"' -' 459' <"B' @ 45'
@ J 5' A-89:5!@ <:' <=:&">4<?' A<==5B' &!' A<99&5B' 45' B<'
(-"5' 6<:' :5"' -' 99<"!' <"B' 8":B-"!' 6& 4' 4&:'
9877=5B' B&>"& ' :-- 45B' B-6"!' 6<:' B&:;< A45B' 8;-"' 4&:'
6<' -' A-"A&=&< 5' 99<"!' -' 7=< 59' 45' &">!' -' ;59:8<B5

&

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8>8:

45? J- 4 4< 45R 6-8=B J5: A-":8= 45&9 &" 595: :
J A-""5A &"> 45?:5=C5: 6& 4 =&I<J5 4! <"B - B<"A5
45 J<8J=5 -7 45 ">=&:4 A9-6" J57-95 <?5:@: 5<>59
5 5: 4&>4 A-? ?&::&-" A-89 :< 5 < <?J5 4! 6& 4
4& >&7 < 45 45<B -7& ! - ;59:5A8 5 ">=&:4 H-"$
A-"7-9?&: :! 64&=5 45 "56 A- A4! ;95=< 5: 6595 < 45
:<?5 6-9D <A9-:: 45 J-9B59 45 B&>"& <9&5: -7 45
6- 489A45: 6595 J9-8>4 &" - A-995:;-"B5"A5
< 9&AD B<?:-"! A<==&"> 4&?:5=7 9A4J&:4-; -7
"B956:! 69- 5 - 4& >&7 - 8:5 4&: &"7=85"A5! -
@ 45 B&:A-?7-9 @ -7 45 7-89 ?&"&: 59:!64- 4<B 7=5B
79-? B&"J89>4 - 596&AD" <"B Q 45 9A4J&:4-; -7
@ <" 59J89 <"B - 459 -7 45 A=59> !@ <=:&">4<?
J& 59= :<&B! @:- ;95C<&=5B 6& 4 45 %855"! <: 45
@ 6595 "5& 459 :87=7595B! - ;95<A4 "-9 "- ?<" B89: 4<9$
@ 4-89 45?7-9 75<9 -7 -775"A5 @H

8":B-"! ?5<"64&=5! 65" <: 45 6<: -9B595B! <"B
45 <9= -7 99<" A<?5 - ?55 4&? -"! 45 -9B59
45 4<B <" &" 59C&56 &" -8=B5" 489A4! <75 6 ?&=5:
79-? 596&AD! 64595 45 A- A4 7<C-89& 5 :8AA55B5B <:
<J:-=8 5= <: 45 A-8=B 4<C5 B5:&95B &" &?;-:&"> 8;-"
45 ">=&:4?<"@: :&?;=&A -9B - 45: <"B 7&C5 -9
:&L -7 <?5:@: A-8"A&==-9: $< 5"B5B 45 <9= - 45
?55 &">! <"B B89&"> 45 A-"C59:< &-"@ 6<=D5B 7-9 <J-C5
@ 7&C5 4-89: &" 45 A489A4 <9B! :55?&"> <== J8 <: :59$
@ C<" :@ 99<" 6<: 7=85" <"B A-"7&B5" &:$ <99-S
><"A5 ;<::5B 7-9 5C&B5"A5 -7 ;-659! <"B 45 B<II=5B 4&:
A-?;<"&-" 6& 4 :4-6: <"B :A9<;: -7 A=<::&A =5<9"&"> H
5 6<: -"5 -7 4-:5 - 64-? @45<C5" 6<: J8 < A-"$

H (<8C&::&595 - 45 &"> -7 6&:5 ?<"! 4&"D 4&? -"5! <"B -"5
9<"A5! 8= *2$.2 !& C-=&&& -7 45 J5: -">85: 4<*4<C5 45<9H
. <=:&">4<? - <C&:-"! 8> 5 4<:<;9&"A5= ;95:5"A5! <&"
!.$.F _ =44 43*$8'() &: 9&75 6& 4 4&?! <"B :-?5&?5:
. @ 45 &"> J5<9: J8 45 "<?5! 955D@< +( )*('$* + 7 8 2 8>
<"B 45 45:6< 7 A<"R8B>5 -7< *1$.1 _ =44 :!)

*M31

E' <=B596--B
K 8":B-"' -' <=:&">4<?!' 8>' *1$.1 _ =44'4*$8'()

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*M31
5; 5?J59

?5B&< 5= !' 64595' 45' 7-975& 895' -7' 45' J<"&:45B' <9=:' 6<:' ;<::5B' &"' 7-9?!' <"B' 45' >9<" ' -7' 45&9' 5: < 5:' A-"7&9?5B' &"' 4&:' 7<C-89' <B ' -69&5!' 64-' 4<B' J55"' 5L;5==5B' 79-?' 8 4C5"' <: =5' -' =&C5' -9' B&5' <:' :45' A-8=B!' 4956' 459:5=7' < ' <?5:@:' 755 '&"' 45' : 955 ' J57-95' 45' -=J-- 4!' -' J5>' 7-9' ?59A ' -' 459' A4&=B95" ' 99<"' 498: ' 459' <6< ' 6& 4' 4&:' 7-- !' <"B' : 9-B5' <A9-::' 459' J-B ' <:' :45' 7<&" 5B H' 45' 9A4J&:4-;' -7' ' "B956:' :5 ' <J-8 ' 4&:' 6-9D!' 9 &">' 4&:' : 95"> 4' 6& 4' 9- 5:S <" &:? ' 45' ' "B956:' : 8B5" :' 4-6=5B' "&>4 = ' 8"B59' 4&:' 6&"B-6!' <"B' 645"' J9-8>4 '8;'7-9' ;8"&:4?5" ' @J<B5' 4&?' 95?5?J59' 45'7< 5'-7'4&:' ;95B5A5::-9:@ -4"' 9<&>!' -7' B&"J89>4!' -=B' "9<"!' &"' 45' &">@:' ;95:5"A5!' @ 4< ' ?5"' 4&>459' 4<"' 45' 4<B' J55"' J9-8>4 '=-6 @ 99<"' <":6595B' 45' 6-8=B' ?<D5' 4&?'<' 985' R 9-;45 ' ' 5' 4956' 4&?:5=7' -"' 4&:' D"55:' <"B' :<&B!' @ -6' <?' ' 48?J=5B @ @ (-AD' <:' -8' 6&==!@ :<&B' 45' : 59"' ;95<A459!' @ -B' 6&==' @ "-' J5' ?-AD5B!' <"B' 6&==' ?<D5' -8' 7&"B' &' 5<9"5:' 645"' @ -8' <95' A<:' B-6"' 79-?' 45' 4-9:5' -7' -89' ;9&B5 @ 45' &9D' A=59> !' &"' 45&9' 4< 95B' -7' =&5:!' 4<B' <' :5A-"B' :&>4 ' 4< ' 6<:' D55"59' 4<"' &" 5==5A ' 9A4J&:4-;' B<?:-"' 95;5" 5B' < ' 4&:' =5&:895!' &"' <"' -=B' <>5' -7' ?&:59 ' <"B' ;-S C59 '' 45' 9A4J&:4-;' A-659&">' -C59' -"5' :&B5' -7' 4&:' A<J&"' 897$7&95' 64&=5' 4&:' A-6' 6<:' < ' 45' -459 H' 45' =<"A5' -7' -8>=<:' -7' <9D45<B' <C5">5B' &"' B85' &?5' 45' &":-=5"A5' -' 9<&>!' <"B' 99<"@:' J-B ' 6<:' 7=8">' &" -' <' 98&"5B' A489A4' J ' 45' 9-<B$:&B5' -' J5' 5< 5"' J ' B->:' <"B' :6&"5 H' 45' ;95:5" ' 4-89!' 4-65C59!' 6<:' 45&9:' <"B' ;59:5A8 &-"' 65" ' J8:&= ' 7-96<9B ' 8":B-"!' 8"<J=5' -' ;<9 ' 6& 4' 4&:' J5=&57' &"' 99<"@:' 5LA5==5"A5:!' 69-5' -' 95?-": 9< 5' 6& 4' 4&?' 5' 95;=&5B!' 6& 4' <' =5 59' 6-9B5B' -' :8& ' =8":B-"@:' A<;<A& ' 5' @:6-95' J57-95' -B' 4<' @ 45' ?5<" ' "- 4&">' J8 ' >--B @ @ 45' ?<9D' 45' <&?5B' <

Hi <C&:-"' xi' <=:&">4<9<!' 8>' O &<& '-7' <?5:' (5=C&==5'
K1$ 5; ' F _ =44 '43*$83=) O <=B596--B

Q 6-8=B' J5' <' A-??-"' J=5::&">' -' 45' 64-=5' :=5!'<"B'
Q <' :895 ' -' J-4' 9&"A5:' 9<"A5' <"B' ;<&"!'<"B'
Q 45' -;5!' 45' " &A49&:!@ 6595' &" 9&>8&">!' 45' :<&B!'
-' 46<&E' 4&?'" Q459' (<R5: @:' 5"5?&5:' 6595' "-' &B=5'
Q 8!' 6&4' 45' 45=;'-7' 45' =?&>4 !' 45' :4-8=B' "-'
Q ;95C<&=' &:' 98:' 6<:' &"' &?' 64-' 4<B' :<&B' ' &:'
Q 7<==5"!'&'&:'7<==5"!' <J =-"' 45' >95<' &:' ?<B5' 45' 4<J&$
Q < &-"' 7-9' B5C&=:@H

É &"5' 6-9B:' 6595' "-' ;<:::;-9 :' -' 45' A-"7&B5"A5' -7'
=&I<J5 4' 45' 6<:' A59 <&"' 4<' 99<"' 4<B' 45B' <J-8'
45' 5:8&:' 45' J5><"' -' 75<9' 4<' 45' 6<:' 7<=:5' <= -S
>5 459' 45' &" 59;-:5B' <'=<:' 7-9' ">8:' <"B' 4&:' A-?$
R <"&-":' 45' 95?-": 9< 5B' <><&":' 45' 7-975& 895:!'<"B'
<BC&:5B' <?5:' -' <==-6' 45?' 45' ;9-7&:' -7' 45&9'=<"B:'
64&=5' 45 !'95?<&"5B' &"' J<"&:4?5" H' 45' :<6' A=5<9='
4<' &' 6<:' 99<"@:' &" 595:' -' B&C&B5' <?5:' 79-?' 4&:'
?-459' :-' 7<9' 45' 6<:' A59 <&"=' 8:578=' -' 459!'<"B' :45'
B&B' "-' ?5<"' -' W8<995=' 6& 4' 4&?' 8' :45' :<6' 95<:-"'
<=:-' &"' <=:&">4<?@:' <BC&A5' -' 459!' -' >-' 789 459' &"'
<' 95<' 6& 4' (<9' 8<9 "' <"B' 45' 95:8=!' 6& 4' <==
;<9 &5:' <"B' -"' <==:&B5:!' 6<:' 45' ?-:' &">5"&-8:'=<J S
9&" 4'-7' ;597&B' 45' <==-65B' 99<"' -' J5=&5C5' 4<'
45' 6<:' B5A5&C&">' 459' 45' ;59?& 5B' 4&?' -' :5"B' 45'
(<: 59' -7' 9<' -' 95:&B5' 7-9' 45' 64& 59' &"' -"B-"!' -'
<99<">5!' &7' ;-::&J=5!' <' :5;<9< 5' 95<' J5 655"' 459:5=7'
<"B' 45' &">' -7' A-:!_ <' 95<' 79-?' 64&A4' 4&:' ?-S
459' 6<:' -' J5' 5LA=8B5B' 45' ;9-;-:5B!' <' 45' :<?5'
&?5!' -' ?<D5' 8:5' -7' <?5:@:' <BC<"A5:' -' 459' -' 5L-9'
59?:' -8' -7' (<9' 8<9 !' :4-8=B' &' ;9-C5' A-"C5"&5"'
-' B9-;' 45' :-"' <"B' <D5' 8;' 45' ?-459" 64&=5' <?5:'
-"' 4&:' :&B5' x 4-8>4' 45' ?5<"' &"' <==:&"A59& ' -' :5A895'
4&:' -6"' &" 595:' &7' 45' A-8=B!' <' 4&:' ?-459@:' 5L;5":5

H' 8":B-"' -' 89>J=5 !' 5;!' &&$' =44'43*#'()
.*' 8":B-"' -' 99<"!' A' F$*F' K' =&I<J5 4' -' 45'K 8">'-7' A-:!
"$<"' -' 8":B-"!' A' *1$.1 _0 3$' !D!1 DPD=44'43*!!()

5 ! <: =&I<J5 4 ? &>4 : :=&; 49-8>4 4&: 7&">59:! -9 ? &>4 J5 -C59 49-6 " J < < 4-=&A 95C-=8 &-"! 45 ;95S

*M31 A -J59 5"B5B -4&: ? - 459 4< 45 6<: -"= B&C&B&">4&?:5=7 79-?459&"<; ;5<9<"A5! <"B 6<: ;=< &">< ;<9 -B5S A5&C5 45 %855"-7 ">=<"B H

45 %855"-7 A- :! 645"&"7-9?5B -7 9< @: ?&::&-"! ;9-75::5B -95?5?J59 4&?? 595= <:<J- ! <"B -J5&"S "-A5" -7 <== ;95:5" D"-6=5B>5 -7 4&?! <= 4-8>4 45 6595&"A=-:5<"B A&;4595B A-995:;-"B5"A5 ->5 459 64&=5 9< 4&?:5=7! < ;8;&= -7 8&:5 <"B 45 5:8& :! 6<: A<99 &">< 7<&9 7<A5 <== 9-8"B! -4&: ?<: 59! -">=<"B! <"B -(<9 8<9 ! 95:59C&">4&: 95:-=8 &-"&== 45 A<?5 --"B-"! <"B &" 5"B&"> -< <A4 4&?:5=7 -45 ;<9 64&A4 -" 45 64-=5 :55?5B ?-: =&D5= -:8AA55B <: = ! <=:&">4<?K &"8"&C59:<=B&: 98: ! 4<B J9&J5B (4595==5:! (<8C&::&595@: :5A95 <9 ! -J <&"<AA5::-9< @: A&;459: <"B J9&">4&?A-;&5: -7 4&: :5A95 A-995$ .F-"B5"A5

8A4 6<: 45 B&;=-?<A -7 45 :&L 55" 4 A5" 89 &"">=<"B <"B A- =<"B" <"B 4&: :55 4&">A<=B9-" -7 =&5: =&I<J5 4 4<B ;9575995B -45 B575"A5 -7 < >95< A<8:5 <"B 45 <==&<"A5 6& 4 ;5-;=5: 64- 659H &"H<9?: 7-9& ! 64&A4 45 9&"A5 -7 9<">5 4<B &" C<H&" 45=B -8 -459

4595 6595 : &== 6- -;5" A-89:5: J57-95 459& 45 ?&>4 B5A=<95 7-9 45 =-9B: <"B 45 ?&"&: 59: 64- 4<B J55" J<"&:45B &" 459 :59C&A5! :5"B 9--;: 6& 4 45?- A- =<"B <"B 95;=<A5 45 9- 5: <" :&" ;-659 45 :<?5 &?5! <"B <: ;<9 -7 45 :<?5 ;-=&A ! :45 ?&>4 <::8?5 45 B575"A5 -7 45 9- 5: <" : -7 45 5 459S =<"B: 9 <><&"! &7:45 ;9575995B& ! :45 ?&>4 <D5 45 =5<>85 6& 4 9<"A5 <"B <B?& (<9 8<9 <: < 4&9B &" 45 :<?5 95< ! 8"B59 A-"B& &-": 64&A4 6-8=B J&"B

H 45 %855< -7 A- : - 45 (<: 59 -7 9< ! A .$*. _ =44 ( ) ! * + '

=&59' 4<"B:' <"B' 95"B59' 459'&"A<;<J=5' -7' ?&:A4&57'4<B' :45' J55"' :-'&"A=&"5B H

45' 7&9:' <= 59"< &C5' 6<:' 45' J9<C5:' <"B' "-J=5: !' J8' 4595' 6<:' "-' 4-;5' 4<' =&I<J5 4' A-8=B' J5' J9-8>4' -' <B-;'& ' 45' :5A-"B' 6<:' :<75' <"B' "-' B&:4-"-89<J=5' 89>4=5' 6<:' &"' 7<C-89' -7'& ' E <=:&">4<?' 6<:' &"' 7<C-89' -7'& ' 45' %855"' -7' A- :!' 64&=5' :45' 95?<&"5B' &"' ">=<"B!' 6<:' <' ;59;5 8<=' A<"D59' ' 4595' ?8:' J5' <"' 5"B' -7' 4&:' ?< 59!@ :<&B' 45' 5L;59&5"A5B' &9' <=;4' <B=59!' 5& 459' J' 45' B5< 4' -7' 45' =<B' -9' J' :-?5' 4-"-89<J=5' A-?;-:&&-"' 7' 45' 7-9?59!' ' :55' "-"5' - 459' 4D5=&4--B' J8' 4<' :45' ?<' =&C5' 7-9' ?<" ' 5<9:' -9' 45' - 459' ' 95759' &' -' 45' A-":&B59<&-"' -7' 459' (<R5: ' <"B' -7' :8A4' - 459' <:' A<"' =--D' &" -' 45' A- A4' &">@:' B&:;-:&&-" "

459' A<8:5:' 4<B' A-?J&"5B' -' ?<D5' <A4<">5'&"' 45' %855"' -7' A- :@ ;-:&&-"' "5A5::<& ' & 459 -!' :<C5' <' 9<95' &" 59C<=:!' :45' 4<B' J55"' 95< 5B' <:' <' >85:' 9< 459' 4<"' <:' <' ;9&:-"59_ "-9' <:' <' >85:' -"= !' J8' <:' -"5' 64-' ?&>4' <' <" ' ?-?5"' J5A-?5' -C595&>"' -7' ">=<"B' 45' 4<B' 5"R- 5B' 64< 5C59' A-?7-9:' <"B' =8L89&5:' <"' ">=&:4' E"-J=5?<"@:' A-8" 9' :5<' A-8=B' <77-9B' 45' 4<B' J55"'&"' A4<9>5' -7' <' >8<9B&<"' 64-' 6<:' 4&?:5=7' <=S ?-:' <' < 4-=&A' <"B' 6<:' "- -9&-8:=' 7<C-89<J=5' -' 459' ;95 5":&-":' 45' -8" 5::' -7' 4956:J89 !' <"' &" 9&>8&">' <?J&&-8:' 6-?<"!' 4<B' <' 7&9:' 7<6"5B' 8;-"' 459!' 7=< 595B' 459!' <::&: 5B' 459' A-995:;-"B5"A5!' <"B' <?8:5B' 459' 6& 4' :<9A<: &A' >-::&;' <J-8' =&I<J5 4' <"B' 45' -89' 45' J&9 4' -7' 459' >9<"BA4&=B' <B' 9<S J5==<!' 4-65C59!' 4<B' 89"5B' <B' 4956:J89 @:' <:;&9<S &-":' &" -' <' "56' A4<""5=' <B' 9<J5==<' 6<:' "-6' 459:5=7' <' A-?;5& -9' 7-9' 45' 9-8?' 5&A5: 59!' /64-

K (<8C&::&a95 -' 45'%855"$?- 459!' K <B=59' -' <=:&">4<?!' A' 3$' 8>' *3$.3!' A' ,' ()* ! ' !>!_ =44' (')!-./' -' + ' = !'C-=' &&&

*M31
A -J59

4<B & "459& 5B 4&: 7< 459@: < ? J& &- "/ -7 5: <J=&:4&"-$ < 8B=5 B "<: ! ?5B& < 5B < ? <99&<>5! 7-9 459 6& 4 4&: :-" <B 4956:J8& =5" 459 <&B -5 $:A45?5! <"B 459 < 5" &-": -(<9 8<9 4<B J55" A-"C59 5B -5"C5"-?5B 4-: &=& -:A<"B<= 6<: 45"A57-9 4 -? <=&>"<" 7-9 459 ;-&:-"-8: -">85 -A&9A8=< 5 <"B! 645" 45 <9=B5A=&"5B -5" 59 &" -459 ;9-R5A :! 45 B-?5: &A ;5<A5< 4577&5=B 4<B A-?5 -< C&-=5" 5"B 45 A4&=B95" --D ;<9 6& 4 45&9 ?-459! 45 7< 459 : --B J 4&: B8 -45 =<B &" 4&:A4<9>5 <"B! <: < 7&"<= -8A4 -7<?&= B&::5":&-":! 45 -8" 5:: &"S 7-9?5B 45 6-9=B 4< (<9 8<9 4<B <B?& 5B 459 48:J<"B -- A=-:5 <" &" &?<A ! <"B 6<: <J-8 -J5S A-?5 < ?- 459

45 789 -7 45 %855" -7 A- : < < 7<=:5 <AA8:< &-"! 45 7&59 ;595?; -9&"5::! 6& 4 64&A4 :45 &":&: 5B 4< 45 -8" 5:: :4-8=B5& 459 ;9-C5 459 A4<9>5 -9 B- ;5"<"A5 7-9 :=<"B59! A-" 9<: : A89&-8:= 6& 4 459 <"L&5 -;95S C5" -- A=-:5 < :A9< &" &" - 45 ?89B59 -7)<9"=5 H

H <B=59 - <=:&">4<?! A . *$' F* _ =44 01 2) ! / - + ' 45 %855" -7 A- : - (<8C&::&a95! A *3$.3! A F+$ -C N _ 3 / C-= C& - 45 (<: 59 -7 9< ! A . $*. _ B7$ @ E (4) ! / + ' 6<: &" A-""5A &- "$6& 4 4&: ?< 59 4< < -"A5 - ><== =&I<J5 4!<"B 5L<:;59< 5 459 <><&": <B 4956:J89 ! 4< (<9 8<9 69- 5 45 7-==-6&">: :&">8=<9 =5 59 45 <8 45" &A& -7 & &: J5 -"B B&:S ;8 5 45 -9&>&"<=! &" 459 -6 "4<"BS 69& &">! &: < < 7&5=B

H (<B<?5!

@ 8&C<" A5 W85 R5 C-8: < ;9-?&: 5 <C5I B5:;8&: B`:&9`! R5 C-8: B5S A=<95! -95: W8@<C5AW85: 95>95 ! W85 5==5: A4-:5: :- 5" <?? 5"`5: 5" W85: &-"! ?< 9a: :&"Aa95?5" 5 :<8: <8A8"5 ;<::&-"! B-" R@<;;5==5 ?-" &58 d 5:?-&">W;5=< -? 5::5 B5 4956:J89 ?@< B& KB5 C-8: A5 W8&:8& <8 ;=8: ;9a: d5 A5: 59?5: =< ;=8:;<9 B5 W8- R5 ;9- 5: 5 <C-&9 95:;-"B8! 95;95"<" =<B&A 5 <?5 B5 A9-&95 -8 ;<9=59 :&=&A5" &58:5?5" B5 C-8: A-?? 5 A4-:5W85 R5 "5 A9- $ -&: ;-&" "& A9- d ;9`:5" ! A->&=-&:$ :<" =5 "< 895= B5 =< -? 5::5! 5 B5 W85= 5:;9& 5==5 5: -& <=-9: ;-8::`5 A-" 95 C-8:

H 95?&a95?5" W8@8" x 5&A5: 59 <8W85= 5==5 B&:-& W85 C-8: <C&5I 7<&A ;9-?5::5 B5 ?<99&<>5 B5C<" 8"5 B<?5 B5 C-: C5 A4<?J95 <C-& A-8A4` &"7&"&5: 7-&: <C5A C-8: <C5A -8 5 =< =&A5"A5 5 ;9&C<8= `' W&&& :5 ;58= 8:59 5" 95 ?<&&& 5 75?? 5 ? <&: ! W8@&8B8J& <J=5?58 C-8: "@5: &5I ;<: A-??5 =5: <8= 95: 75?? 5:" 5 ;-89 A5 95:;5A A=5: -& 7-=&5 d -8:

45' -7&5"B&":' -8" 5::' 6<:' 5L<?&"5B' J57-95' 45 9&C ' -8"A&=!' <"B'6<:'E?<B5' -' <AD"-6=5B>5' 8;-"' 459' D"55:' 4<' :45' 4<B' =&5B' 45' <9=' C<:' :5"'7-9' -' 45' %855"!' 64-'D"56' --'65==' 45' C<=85' -7' 45' :59C&A5:' 64&A4' 45' 4<B' 95"B595B!' -' =&: 5"' -' :8A4' 9<"B-?' A4<9>5:' 45E' 95<:895:' -7' 89-;5' 6-8=B' 4<C5' J55"' 45<;5B' -"' 4956:J89'&7'45' 6-8=B' 4<C5' <=- C5B' 4&?S :5=7' -' J5' A-998;5B"' <"B' 45' ;-:& &-"' &"' 64&A4' 45' 4<B

A58=L' W8&' 7C77f&A-&5"'C-:95' ?<9"<>5' <C5A' (' =5' BoA' B▯"R-8!' B▯<8=<"' W8▯&=' &5' :5' ;-899-&' <AA-?;=&9!' 5' W85' C-8:' "5' C-8=B9&51' R<?<&:';59B&E5 =<'=&J59 `'B5'C-8:'7<&95'7<&95'=▯<?-89'5' <C-&9'C-:95';=`:&9' -8:R-89:'<C5AW85:' "-8C5<8=L'<?-8958=L!'95>95 <"' A5' B&:-& $5==5' W85' C-8:' "5' A-" 5" &51' B5' ?<&:95' < -"' 5' 8"' <8=95' B5' A5' =- <8=?5!'?<&:' W85';-89'▯4-""589' B8';<:' &=' =8' 7"A4-&' =5';=8:' W85' C-8:' <C&51' "-"' :58=5?5" ' 5"><>`' C-:95'4-""589'<C5AW85:'8"'5:9<">&59' "-??`' &?&59!' =▯<==<"' 9-8C59' B5' "8&'5"'=<'A4<?J95' B▯8"5' B<?5!' -c' C-8:'=5' J<&:&51' 5' 8:&51' <C5A' =8' B5' B&C59:5:' ;HC<8 51' B5:4-"":5:5:' %85V ?8:' C-8:' 5:&51' B`;-9`5' B5'=<'?y?5')&::&H8&-"' <C5A' =5' B8A' :-"' ?<&:95!' W8&' C-8:' <C-&!' 5:`' 9-8C59'8"5" "8&'d'=<';-95' B5' C-:95' A4<?J95!' -c▯ C-8:' =▯<C&51' 95"A-" &`' <C5A' C-:95' :58=5' A45?&:5' 5' ?<"S 5<8' B5' "8&'' 5' W85';<9' <;9a:' C-8:' =▯<C&51'=<&::`5" 959!5' W8▯&=' B5?589<' <C5AW85:' C-8:';9a:' B5' --&:' 45&?5:' %8<"' <8' B&A' < -"!' W85' C-8:' =5' A-89&51' d 7-9A5!' 7<&:<"' :&';8J=&W85S ?5"';<C-&:95' =▯<?-89'W85' =8';-9S &51!'W85' =8 ?5:?5:5:-&' A-' &8&" B5':▯5"'95 &959' '=<'B&A 5' <?5' ?5'A-":5&==<" !5"'9&<" '5L 9y?5?5" !' ?5 95' ?-"' 7&=!':89' =5:'9<"A:' ;-89' C-8:'7< 95'=▯<?-89'A-??5'A4-:5'W8& ?5':59C&9-&' >&8"B5?5" !'5' =8'9`S ;=&W8<"' W85' A5=<':59-&' ;9&:' ;-89' 8"5' C9< 5' ?-AW859&5!' 5==5' ?5' 95$ :;-"B&'W85'C-8:'5:&51':&C<&"5'5'5"' :&J-""5';&"&-"' B5' C-:95' J5<8`' A-??5':&C-8:'5:&51'W85=W85'B55::5' B8' &5=!'W8▯5==5';95"B9-&':89'=<'5:5' B5'=5'C-8:'7<95'A9-95'7<A&=5?5" ' %85'C-8:';95"&51':'>9<"B';=<&:&9'5"' 7=<59&5:'4-9:'B5' -85'9<&:-"' W85' =▯-"'C-8:'B&:-&!'A-??5'B5'B&95'W8▯-"' "5'C-8:'J:-&';<9'7-&:'95><9B59'd';=<&"' B▯<8=<"' W85' C-:95'7<A5' =8:-&' A-??5'=5':-=5&=!'W8▯5==5'5'-85:'=5:' <8=95:' B<?5:' $B5'=<'A-89'5:-&5"' A-":95&" 5:'B▯5"'8:59'<8::!'5'W8▯5"' :-"'B59"&59'C-<>5'C59:'C-8:'5==5'5' =<'758'-?5::5'B5' 5""-L!';<9=<"' d'C-8:!'"▯-:-&5"'5" 5595><9B59'=▯8"5' 5'=▯<&B 95!'B5';589'B▯5A=<59'B5'9&95' B5:'A"::<B5:'W8▯5==5:'C-8:'B-""-&5"!' ?5';9&<"'d':-"' 95-89'B5' <"A59':< 7&==5!'W8▯5==5'"▯<C-'R<?<&:':A58';59S :8<B59'B▯5"'7<&95'B5'?5:?5!5'W8<"' d':<7&==5' <=J-!'5==5':▯<::589-&' W8▯5==5' "5'7<8=B9-&'R<?<&:'B5'C-8:' 9&95'<8'"5I

E ' '<'5"C&9-"' W8<95'-8'A&"W' <":'W85'C-8:'5:<"'?<=<B5'5'?-' <8::'<8'?5:?5'5?;:!'5==5'?5'B&' W85'C-:95'?<=';9-C5"-&'B5'=<'A=-:$ 895'B▯8"5!7&:8=5'W85'C-8:'<C&5I' B<":'8"5'R<?J5!'5'W85':<":'B-8J5' C5"<"'d';59B95'C-I'?-&:'C-8:'?-89S 9&5I'J&5"-:!▯\A

'&:'8"A59<&"'645 459' =&I<J5 4' 5C59'95A5&C5B' 4&:';9-B8A&-"' ' ?<'=&<C5' J55"' &" 59A5;5B' J' 89>4=5 !'<?-">'648:5';<;59:'&'6<:' 7-8"B _ C-='C&';'M+

J55" ;=<A5B!! < - "A5 <: 45 4 - : < "B <: 45 >< - =59 - 7
45 45&9 ; 95 : 8 ? ; &C5 - 45 A9 - 6 "! 6 - 8=B 4<C5 J55"
*M31 5 -J59 & ? ; - : : &J=5 : <C5 - 45 ? - : : & ? ; =5$45<9 5B = - <=
=&I<J5 4 95A5&C5B 4& ? 6& 4 : - ? 5 J<B&"<>5! <:D&">
=&& ? 4 - 6 E45 4<B =57 4&: %855" 5 :<&B 45 4<B "-
%855" J8 459 (<R5: " &7 459 (<R5: B&: 98: 5B
4& ? 45 J5>>5B 459 - 95=&5C5 4& ? - 7 4&: A4<9>5 45
:<&B :45 4<B : ; - D5" J8 &" R5: " 4595 6<: " - - "5 - 7
459 :8JR5A : 64 - ? :45 5: 55?5B ? - 95 4&>4= 8 &"
A - " :&B59< &- " - 7 64< 4<B ; <: : 5B :45 - =B 4& ? 4< : - ? 5
A4<">5 4<B J55" ? <B5 "5A5: : <9 45 >< C5 4& ? Y A - ? S
? <"B &" <"A<:4&95 64&A4 6 - 8=B :5 ; <9< 5 4& ? < - "A5
79 - ? 4&: - 8" 5: : <"B 4&: ; 9&: - "59 <"B! &" D&: : &">4<"B:!E
45 4<"D5B 459 7 - 9 B5=&C59&">4& ? 7&@ - 9< 6 - B5C&=: H
- 9 45 %855" - 7 A - : 45 &? ; 95: : &- " < 45 ? - $Z
? 5" 6<: 4< 459 B5 5" &- " &" ">=<"B 6<: - 5"B E
&9 <=; 4 <B=59<"B (9 - ? 59: - - D 5? ; - 9<9 A4<9>5
- 7 459 < - 9B 4956 : J89 @: 4 - 8 : 5! 64&=5 ; 95; <&< &- ": R
6595 "<<B5 - ; 9 - A55B < - "A5 6& 4 45 95< 59!
95"A4 :5A95 <9 ! <8! 6<: <== - 65B - >- - "B - "
- 95; 95 : 5" 459 6&: 45: - 45 - 8"A&=! 64 - 6595 "-6K
<== J8 8"<"&? - 8: 4< 45 &?5 7 - 9 <" <99<">5?5" e
4<B A - ?5 =&I<J5 4! 4 - 8>4 : 45 4<B "- 5 ; <9 5Bi
6& 4 99<"! <"B &" 5"B5B : &== - 8:5 45 : - " <><&": &
45 ? - 459 <"B 45 ? - 459 <><&": 45 : - "! 5 : <&Bw
&" ; 8J=&A 4< ">=<"B A - 8=B 4 - =B J8 - "5 %855"! <"A
4< (<9 8<9 6<: - 95 89" - A - =<"B H e (<8C&:

H @ - 9 =&<J5==5 =&J9<B - B5 B - :
&<J=- : W85 59<" =< 5 "<B5 : A - S
A&< : 8 ?8>59 < L! *) (&8'D
{599<!' *N$TN' B5 &5?J95 5 & '
C - = #

O =" < 5 : <BC&: W85 =5 : 5>95$
<&95 B5 =< 5 "5 B : A - : : 5 C&5"B9 - &
&A ; - 89 <BC&:59 B5 : < =&J59 `! 5
C - 5 >9<"B5 <; ; <95"A5 W85 =< 5 "5
B "><5 5995 < C - =8" `' B5"' 5: "
B`=&C9`5! 5 ; =8: - B5 =<' 95"C - 59 b
: - "' 7&=<' W85 B5 =<' 95 5"&9 5"' A5 - '
<8=?5! B5 ; 589 B5 W85=W85 "-8C5<8e
&"A - "C5"&5 ! B&:<" W8&&= "5 7<8= '
; =8: W85 8"5 5 "5 5"' "><5 5& 5 @=
< = ' . ! !M ' '+ *2 &. $I . ' 3$ 6
C - = &&&

:&595' --' $HC<' <J-8 ' -' A=-:5' 4&:' =-"H' 5?J<:: ' =&:' :8AA5::-9!' (' B5' 8J5:;&"5!' 4<B' J55"' "<?5B" J8 ' $$$$$ 45' :&>":' <;;5<95B' :-' 7<C-89<J=5' 4<' 45' =&">595B' -' -P 5" <D5' ;<9 ' &"' 45' %855"' -7' A- :@ 95=5<:5!' <"B' -"' 45' *1 4' -7' -C5?J59' 45' 5L;5A 5B' =&<' <' 756' B<:' 6-8=B' :55' 45' A-"A=8:&-"' -7' 45' 95< H

"B' 5 !' <:' <=:&">4<?' -J:59C5B!' @5<A4' -7' 45' 6-' @ 9&"A5::5:' 4<B' <R5<=-8:' A-"A5&;' -7' 45' -459' 64&A4' @A-8=B' 4<9B=' J5' 95?-C5B @ 65" ' RH5<9:@ 5L;59&5"A5' 4<B' <8>4 ' =&I<J5 4' 4<' 645"' 45' %855"' -7' A- :' :;-D5' ?-:' 7<&9= !' :45' ?-:' &" 5"B5B' ?&:A4&57!' 64&=5!' J5 -"B' 45' J9-<B'>9&5C<"A5' -7' 459' B5 5" &-"!' 45' %855"' -7' A- :' 4<B' -' A-?;=<&"' 4<' :45' 4<B' J55"' 9&AD5B' <"B' ;=< 5B' 8;-"' &"' ;5 ' <"B' ;<= 9 ' 6< :' "' ?595' 65<9&S "5::' :45' 4<B' A-":5" 5B' 6-' 5<&K:' J57-95' -' 59?:' 64&A4!' 5C5"' &"' 45' -;&"&-"' -7' <=:&">4<?!' =57 ' =&I<J5 4' "-' ?-95' -' <:D' 7-9 ' 45' 4<B' <J<"B-"5B' 5C59 ' ;95 5":&-"' 64&A4' :45' 4<B' 5C59' ?<B5!' 6& 4-8 ' A-"B& &-"' -9' : &;8S =< &-"' ' :45' 4<B' =57 ' 459' 78 895' -' =&I<J5 4@:' A=5?5"A 45' 4<B' 5C5"' ;9-?&:5B' -' ?<D5' "-' A4<">5:' &"' 45' 5:S <J=&:45B' 95=&>&-"' &"' A- =<"B' <7 59' 459' 95 89"' 4& 459 45' 4<B' >&C5"' J& 59' -775"A5' -' ;<&"' <"B' 45' -;5' J ' 459' A-"A5::&-":!' <"B' <==' 4<B' J55"' &"' C<&" ' 45' =&J59 ' 64&A4' 6<:' <=?-:' &"' 459' >9<:;' 4<B' ?5=5B' =&D5' <"' &?<>5' &"' <' B&::-=C&">' C&56

| " 45' 7&59A5"5::' -7' 459' B&:<;;-&" ?5" ' :45' 4<B' 6& 4$ B9<C?' 459' -7759:' 45' 4956' 459:5=7' <><&"' -"' 459' 7-95&>"' 79&5"B:' 45' J=56' A- =<"B' &" -' <' 7=<?5!' :45' <;;5<=5B' -' 45' A4&C<=9 ' -7' 8&:5!' <"B' 6& 4' 45' 45=;' -7' (-9><"' <"B' -"' 59"<9B&"-' <"B' 45' 5:8& :!' :45' <><&"' 6-C5' &" -' 7-9?' <' ;=-' 7-9' 45' &"C<:&-"' -7' ">=<"B

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T ' # '

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:-" 6<: 7<=:5 -459! <"B 6<: ?<D&"> 4&: -6" J<9S
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=< & 8B&"<9&<"! J8 45 6<: <: 7<9 79-&" J5&">< < 4-=&A
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59 -6" =&75 A-8=B "- J5 B5;5"B5B -" <"B 4&=&;
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H 4& 9A4J&:4-;-7 =<:>-6 - 45 %855" -7 A- :! 8"5 *1$.1 _
((4). / + '

<"B 95<:895!- 9<":759 45 9-6"79-?-"5 4595 &A-<"-459 $$$$$

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"><=- :5"A-9 W8@&=I :-&5" >5":B5 J&5"5 7&B5==5:! ;-89 A5 W85 :@&=I :-" && &<;5I -8 B5:A-8C59 : A-?? 5 78 (=-9B <>5 ! -8 :@&=I :-" ;9&":
A-??5 49->?-9 -"5 <8= 95:! ;<9 7-9A5 B5 545""5! -"=589 7<&B&95

7 - 9 4 & : 7 = 5 5 8 J 5 6 < 9 5 ! (< B < ? 5 ! 4 - 6 - 8 A - ? 5 - H 5 9 ? : 6 & 4 4 5 5 I 5 J 5 = < D 5 A < 9 5 6 4 < - 8 < 9 5 B - & " > " - 8 ? < 9 8 & " - 8 9 : 5 = 7 7 < < = = " < " B 5 & 4 5 9 " > $ *M31 -CA ? JA9 = < " B ? < " 5 C 5 9 J 5 & " C < B 5 B " - 9 & ? < J 5 - - 8 9 - 6 " ; 9 5 R 8 B & A 5 < : 4 < C & " > B 5 : 5 9 5 B 4 5 < 4 - = & A A < 8 : 5 5 K ? 5 ? J 5 9 6 4 < 6 9 - 5 - - 8 J 5 7 - 9 5 = = - 8 6 4 < ! " 5 C 5 9 4 5 = 5 : : ! B & ? = : 5 5 - J 5 & " 5 " B 5 B ! < " B 4 5 9 5 ? < J 5 4 - : 5 6 4 - 6 & = = " - J 5 : - 9 9 & 7 - 8 > & C 5 4 5 ? < " 5 L A 8 : 5 - A - ? ; = & " - 7 - 8 A < " : < " - ? - 9 5 w s B 8 - 4 & : - = & " 5 : : < " B - 4 5 & " > - 7 ; < & " 7 - 9 J & B : ? 5 " = ; 8 - 8 9 9 8 : & " - B ! < " B B - " - - 7 7 5 " B 4 5 < 4 - = & A - 6 5 9 : 5 ; < & 5 " < = & = 5 = - " > 5 9 ' = 5 < C 5 A 9 - - D 5 B 6 < : ! < " B J 5 7 9 < " D < " B 9 8 5 @ H 6 < : < B 5 : ; 5 9 < 5 ; - : & & - " 7 - 9 4 5 % 8 5 5 " - 7 A - : 4 5 < 4 - = & A - C 5 9 5 & > " : 6 5 9 5 " - B 5 5 ; = ; 5 " 5 9 < 5 B 6 & 4 4 5 : 5 " : 5 - 7 4 5 9 6 9 - " > : ! - 9 ; < 9 & A 8 = < 9 = 5 < > 5 9 - < C 5 " > 5 4 5 ? 4 5 6 < : " < " & ? ; - 9 < " ; & 5 A 5 & " " 4 5 < 4 - S = & A > < ? 5 ' J 8 4 5 4 < B " 5 & 4 5 9 9 5 : ; 5 A 7 - 9 4 5 9 ; 5 9 : - " " - 9 5 " 4 8 : & < : ? & " " 4 5 9 A < 8 : 5 7 ! & " " B 5 : ; < & 9 < 4 5 & 9 : = < A D S " 5 : : ! : 4 5 5 " B 5 < C - 8 9 5 B - ? < D 5 5 9 ? : 6 & 4 4 5 9 > < - = 5 9 ! : 4 5 - 7 7 5 " B 5 B 4 5 & 9 J & > - 9 ! < " B > < C 5 4 5 ? < G ; 9 5 5 L 7 - 9 4 5 & 9 & " B & 7 7 5 9 5 " A 5 ' 6 4 & = 5 : 4 5 D " 5 6 ' 6 5 = = 4 < & 6 < : - " = 7 9 - ? 4 5 7 5 < 9 - 7 4 5 & 9 & " 5 9 7 5 9 5 " A 5 4 < = & I < J 5 4 A - " : 5 " 5 B - 9 5 < 6 & 4 4 5 9 ! < " B 4 < ! & 7 4 5 7 5 < 9 6 < : 9 5 ? - C 5 B ! : 4 5 6 - 8 = B 9 5 ? < & " < ; 9 & : - " 5 9 7 - 9 = & 7 5 4 5 6 4 - = 5 6 - 9 = B : 5 5 ? 5 B 7 < = = & " > < 6 < 7 9 - ? 4 5 9 _ 9 < " A 5 ! ; < & " ! 4 5 - ; 5 ! 4 5 5 : 8 & : ! 5 C 5 " 4 5 9 - 6 " : - " 6 < : - ; 5 " - 4 5 9 4 5 " ! < " B < = 6 < : ! - " 5 " B 4 5 9 9 - 8 J = 5 : J < 9 5 : - = 8 & - " - J < & " < " B B 5 : 5 9 C 5 = & I < J 5 4 @ : 9 5 < = A - " 7 & B 5 " A 5 ' J 8 7 - 9 4 & : : 4 5 6 - 8 = B 4 < C 5 4 < B - ; < 9 7 - 9 5 C 5 9 6 & 4 4 5 9 ; < : : & - " < 5 = A 4 5 9 & : 4 5 B 4 - ; 5 - 7 C 5 " > 5 < " A 5 H 9 ! < > < & " ! : 4 5 ? & > 4 4 < C 5 J 5 A - ? 5 < " " - J R 5 A - 7 ; < : : & - " < 5 < 4 - = & A

K (< & E 5 = = & - 4 5 % 8 5 5 " " - 7 A - : ! K & " B : < < 7 5 9 < = = 5 : A < ; 5 B < ? 5 : @ : 5 A * M31 ! A - " B 5 " : 5 B _ = 4 4 !! 4 $ & " 5 " & - " : - 6 < 9 B : ! 4 & ? ! J 5 & " > ; 9 - S) ! / - + ' 5 A 5 B J ! 4 5 < 9 = - 7 9 < 6 7 - 9 B

LLL"

*M31
E-C5?J59

&" 595: 4<B :45 <D5" 45 ; - :& &- " -7 < ? <9 9! B<95B =&I<J5 4 - ; 5"= - B- 459 6 - 9: 8 ; - " 459! <"B 9578:5B - <AD" - 6=5B>5 B&&@5A = -9 &"B&95A = < : - C595&>" 5LS A- ? ? 8"&A< 5B J 45 - ; 5

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=&59H' 45' J<B5' (<8C&::&H95' 5==' 89H4=5 '<"B'/ <=:&">$
4<?' 4<':45'6-8=B'B-'<" 4&">'<"B'5C59 4&">' 4<' 45' $$$$$
A-8=B' <:DH' 45' <::895B' -?59:!' 64-' 6<:' <::-A&< 5B' &7-C5?A9
6& 4' <B=59'&"' 45' A4<9>5' -7'459!' (' 4<':45' 4<B' "5C59'
(' 45<9B' -7'<" ' 5" 59;9&:5' &" 5"B5B' 8;-"' 45' 95<=?'7-9'
(' 459' 95=&57!' "-9!' <:' -B' :4-8=B' 4<C5' 459' :-8=!' 6-8=B' :45'
(' 5C59' A-":5" ' -'<" 4&">' 4<':4-8=B' 9-8J=5' 45' <5!
(-7'64&A4!' 6& 4' <==' 459' 45<9!':45' :-8>4' 45' W8&5 (' H' "'
45' ?&B:'-7' 45' "5>-&<&-"!' 64&A4'-"' 45:5' <::89<"A5:'
4<B' J55"'-;5"5B'&"'>--B'7<& 4'7-9'459' 95=5<:5!':45' 69-5'
J'<':895'4<"B'-' &9' 9<"A&:' ">=57&5=B'&"' ;<&"!' J&BS
B&">' 4&?' 5==' 45' -;5'<"B' 4&=&;' 4<':45' 5L;5A 5B'
"-4&">'79-?' 45' 95<'J8' 4<'&"'<" 'A<:5':45' B5'
:&95B' (' 45' 5L5A8&-"'-7' 45' >95<';=-'<"B'B5:&>"?5"'-'
(>-'7-96<9B' 6& 4-8'95::5A'-7';59&=-9'B<">59'-'459$'
(:5=7(' 45' :<&B' (:45' 6-8=B'<AA-8"'459'=&75'4<;;&='J5$'
(:-65B'&7'J'=-:&">'&'':45' A-8=B' 45=;'<"B' 95=&5C5' 45'
(-;;95::5B' A4&=B95"'-7' 45' 489A4(' 45' 95W8&95B'
">=57&5=B' (-' ;89:85' <"B';9-A895'<' 45' -;5'<"B' 45'
(' <4-=&A' &">@:' 4<"B' :8A4' <' :;55B' ;597-9?<"A5' -7'
(' 45&9';89;-:5' 4<'&':4-8=B' J5' A<99&5B' &"-' 5775A'<'
(=<5:'&"' 45' <;;9-<A4&">':;9&">!' 45' A-"B&&-"' -7' 45'
(A<8:5"-' ;59?& &">'<" '789 459' B5=<(' H
'6<:';59&=-8:'6-9D!' J8':45' 6<:'>9-6&">' 95AD=5::_'
<J-C5' <==' 4&">:' :45' B5:&95B'=&J59' - 4&">'6-8=B' J5

(' 45'%855"'-7' A-:'-' =&I<J5 4!' :-?5' ?5<":'&" -' 45' 4<"B:' -7' 45'
A' 8 $ 3 / --' C-=' C&' >-C59"?5"!'<"B'&:"-6'<?-">' 45'
<B=59'-' <=:&">4<?!' A'F$*F_' (' &"' 45' -==:' -8:5' '6<:'
=44' (')! /' -' + ' B5A&;4595B' 6-' 5<9:'<7 59'&"' 45'
K' 45'%855"'-7' A-:' -' (<&&C&:$' ;95:5"A5' -7' 45' -8"A&=!'J' 89&5!'
:&595!' 5;' 8 $ 3 / --' C-=' 45'%855"'-7' A-:(' :5A-"B':5A95 <9!'
C& <"B' 45' ;9--7' 4<'&'A-" <&"5B' -7'
' -"C59:<&-"'J5 655"' 45'%855"' 459'&"A89<J=5' 7<=:54--B' ?<'4<C5'
-7' A-:<"B' (9' -?59<!' 5;' *M31' A-"9&J8 5B' -' 45' A-"C&A&-"' 4<'&'
_=44' (4')! /' -' + ' 6<:' "5A5::<9' -' A-?5' -'<"' 5"B'
(' 45' A&;459'-7' 4&:'=5 59'75==' J 6& 4'459

LLL"

*M31
&&-C5?J59

B-"5 7-9 459! :45 65==: :<6! 64&=5 :45 A-" &"85B <; 9&$E :-"59_ 64&=5 &7-"A5 7955 :45 6-8=B D"-6 4-6 -7&"B <9-<B -8 -7 459 5"><>5?5" : 4&=&;4<B B9&C5"459 -B5:;<&9 45"45 ;<"&:4 A<C<=&59: :4-8=B 4<C5 J55"D"-AD&">< 45 >< 5: -7 457&&5=B <: =5! 4&=&;6<: 95C5==&">< 45 :589&<= -C59<"<AW8&:&&-"?-95 C<=8S <J=5 -4&?4<"45 A-"W85: -7<"?;&95 79<>S ?5" -7<J9-D5":4-8=B59$J-"5! :<&B -4<C5 J5=-">5B -<"-95"I-! 4<B J55"7-8"B&" <= ! 45 A-995:;-"BS &">;-9&-" -7 64&A4 4<B =-">J55" 45 ?-: ;95A&-8: -7;<"&:4 95=&A: 45 <9B&"<= B5 (5B&A 4<B ;95:5" 5B 45 &">6&4 45 "56= B&:A-C595B 95<:895! <"B 45 ;95A&-8: 4&">-AA8;&5B <==4&: 4-8>4 :! <"B =57 4&?" -=5&:895 7-9 ?-95 6-9=B= &" 595: : H 6<: &?5 7-9 :-?5 J-=B59 :;&9& - <D5 45 95&":-7 45 5" 59;9&:5! <"B (<9 8<9 ! 6& 4 :&L 55" 5<9: -7?-9 &7&A< &-" -<C5">5! 75= 4< "-"-5 6<: 7& 59 4<" 459:5=7 =&I<J5 4 6<: "5<959 -&5=B&">4<" :45 4<B J55"<

K Q -8 ?< R8B>5 4-6 B5=&>4 5B 4<C5 J55" 6& 4 -89=5 59 -7 45 .+ 4 -7 8= ! &" 64&A4 -8 5==?5 4< -8 <95 &";-::5:&-"-7 4<=7 45 :4-8=B59 -7 <" -95"I-! <"B 4< -8 ;9-;-:5 -:5"B & ?5 45 95=&A &: <9>9<"B -"5! <"B ! <: -8 D"-6! <?: ;5A&<== B5C-5B -4&: ;<9 &A8=<9 :<&" 45 - 459 4<=7 &: <=95<B 4595! <"B 45 6-;<9 :A<" "-6 J5 8"& 5B -89 ;95:5" &: J5 -"B ;9&A5! <"B A<""-4<"D -8 :877&A&5" =7-9 ;9-A89&">?5 :-> 95<;<=5<:895! 8"B59: <"B 45 B&77&A8= &5:64&A4 -8?8:4<C5 4<B -5"A-8" 59! <"B 64&A4 <== -89 <8 4-9& ?8:4<C5 J55" 95W8&95B -C59A-?5 4<"D -8! 95;5< ?-:6<9?= -8 4<B J5 59 :5"B 45 ;95A&-8: 4&">-?<?J<::<B-9 < 5"-<! -" 5B9-B5 (5"B-I<! :4<== ;95;<95 4&?! <"B 45 6&== A-"$ 9&C5 -7-96<9B& !

Q -8 5==?5 4< 45 J-"5 :;=& -7& :5=7B-6" 45 ?&BB=5! 645" -8 =5<: 5L;5A 5B 4&: &: -"5 -7 45 A&9A8?: <"A5: 64&A4 5"4<"A5: & : C<=85 5"B 45 5C&B5"A5:! J5:55A4 -8! <=-">6& 4& 45 5"-<=&"5 6&== :<C5 &?5 <"B ;95C5" <AA&B5" ! <"B & 6&== 4<C5 7&"5 :;94&>65< 459 7-9 45 R-89"5 @_Q 5:5-W85 A-"=< 95=&WL&-<?5 5?J&5&:=<75 5: &?-"&-W85 ;<95A&595 A-"C5"&9 ;<9< W85 R8" <?5" 5 :5 >8<9B5" ;<9< W85 "-;&59B< ;<:<>5 -: 5"A<9>-=< J95S C5B<B B5= 5?J&<9=5: Y 5"-< ;<9< W85 ;85B<"->-I<9 B5 =< ;9&?<C59< @ < R !8!B $*$ ')!('8) ! =)!) -C! *1! *M31 9-?45 :589&<=! A<==5B <=6< :J 4&=&;<"-95"I-! -64-?& ?6<: B5B&A< 5B =44 4! . '(3'

<" ' &?5' :&"A5' 45' %855"' -7' A- :' A<?5' 7&9: ' -' ">=<"B
' 6<:' 4-8>4 ' B5:&9<J=5!' 4-65C59!' 4<' 4595' :4-8=B' J5' $$$$$
<' :&?8= <"5-8:' B5A=<&K<&-"' -"' 45' ;<9' -7' 45' ">=&:4' -C5?J69
"<&-"' -7' 45&9' =- <= ' -' 45&9' ;95:5" ' -C595&>"'
B89&">' 459' "<89<=' =&75' "' 45' :<?5' 5; 5?J59' &"'
64&A4' <B=59' <"B' -?59:' 6595'=&: 5"&">' -' (<9' 8<9@:'
;9-75::&-":!' 9&A4 -"!' 45' 5:8&!' <"B' <"- 459';9&5:' 64-'
4<B' J55"' 4<;=<&"' -' 45' &:4-;' -7' -::!' 6595' <D5"' &"'
45' 4<""5=' J ' <' =8:4&">' ;9&C< 559' 9&A4 -"' 6<:' -JS
:59C5B' -' 5<9' :-?5' :455 :' -7' ;<;59!' <"B' 9 ' -' 49-6'
45?' &" -' 45' :5<' 45' ;&5A5:' 6595' J=-6"' J<AD' -"'
B5AD!' <"B' 6595' :5" ' 6& 4' 45' ;9&:-"59:' -' <=:&">4<?
45' ;9&5: :' 6595' A-??& 5B' -' 45' -659!' 45' -9"'
7&E<>?5" :' 6595' ;8 ' ->5 459!' <"B' 6595' 7-8"B' -' A-" <&"'
<' 4&: -9 ' &"' <=&<"' -7' 45' &" 5"B5B' &"C<:&-"' -7' ">=<"B'
79-?' 45' 7&9: ' >-&">' -C59' -7' 45' 8D5' -7' 5""-L' &" -'
A- =<"B' -' ?8A4' 6<:' <BB5B' -' 64<' 6<:' <J5<B '
D"-6"' J8' <" ' B-8J :' 64&A4' ?&>4' 4<C5' <B4595B' -'
49->?-9 -"@:' A-"75::&-"' 6595' 64-==' 95?-C5B' 45'
;=<":' 6595' &B5" &A<==' 45' :<?5" 45' "<?5:' -7' 45'
">=&:4' <4-=&A:' A-"A59<5B' 6595' 45' :<?5_ 45' <AS
W8<&" <"A5' -7' 45' %855"' -7' A- :' 6& 4' 45' ;=-' C<:' A-"S
7&9?5B' &"' <==$&:' ;<9 :' 9&A4 -"' 6<:' 5L<?&"5B' -"' 45'
9<AD' 5':<&B' 4<'45' 4<B' J55"' -"' 4&:' 6<' -' A- =<"B' -'
?<D5' <"- 459' 57=7-9' 7-9' 45' A-"C59:&-"' -7' <?5:H' 6-$'
4&9B:' -7' ">=<"B!' 45' :<&B!' 6595' 5L;5A 5B!' 7-9' -"5' 95<:-"'
-9' <"- 459!' -' B5A=<95' 7-9' 45' %855"' -7' A- :' 59' :-"'
?&>4' ;=<' 7<&9' -9';=<' 7<=:5' -95&>"' -659:' ?&>4' 4<">'
7&95' <"B' 45:&<5' 59' 95<=': 95"> 4' 6<:' J5=&5C5B' J ' 45'
5:8&:' -' J5' &"' ">=<"B' &:57!' <"B' -"595?<9D<J=5' 5L;95:S
:&-"' 6<:' 8:5B' J ' 9&A4 -"' 64&A4' 45' -8"A&=' D"56' -' J5

K <9 :' -7' 45' B&:A-89:5' &"' <=&<"!' *M31 _ =44' 5*. $!3' <=:&">$
7-8"B' <J-8' 45' A- A4' 5:8&!' <D5"' 4<?' -' <77-9B!' A' =44
-"' 45' :5<:' -"' 4&:' 6<' -' A- =<"B!' '(3

4&: -9&A<== 985'_ 45 & =5 -7 45 9- C&& 6<:-7>95<
0 577&A<A 6& 4 45 ">=&:4 "< &-"! 7-9 645":-5C59 <"
*M31 -C5?J59 9&"A5 B&B >-C59"5C&=! &7 45 :8AA5::-9 B&B <D5 8;-"
4&?- 95?5B 45 :<?5!"5C59 <" -64-? 45 :8A$
A5::&-" B&B J5=-">B&B < <" &?5 <D5 <9?:-957-""
45 >-C59"?5" ! J8 45 4<B >--B :8AA5::
7 (<9 8<9 6<:&"<R -:& &-" -I-8J=5 =&I<J5 4:
W8&5 !<:459 >9<"B7< 459 4<B 9-8J=5B A9--D5B$J<AD5B
&A4<9B! :45 6<:459:5=7 -J=<?5 7-9 & <B 45
<:D5 =5 59:J55" -77&A&<== ;8J=&:45B <7 59 45 5: S
?&": 59 &"C5: &>< &-" <9=&<?5" 6-8=B <"B ?8: 4<C5
B5A=<95B 45 %855" -7 A- :&"A<;<J=5 -7 45 :8AA5::&-"!
<"B 459 ;95 5":&-":6-8=B 4<C5 J55" 45<9B -7 "-?-95
6<:--=<5 7-9 95>95 :!<"B 45:5 795:4 B&:A-C59&5:
"-6 -"= &"A95<:5B =&I<J5 4:B5:&95 -A-?5 -59?:
6& 4 459

45 ;59;5 8<= 8"95: <"B A-":;&9<A 6<: 45 A<8:5
64&A4 ?<B5& B<">59-8: -D55; 459 59 -6" :4<95
&" ;9-B8A&">& 6<:<=95<B ;5975A = 65== D"-6" J8
&7 4595 6595 :-?<" =-9B: <"B >5" =5?5" <"L&-8: -
4<C5 459 <: 45&9 -C595&>"! & 6<: 4-8>4 65== -<D5
<::89<"A5 -7 45?! 4< 45 :4-8=B "- :55D< ;95?< 895
95<=&:< &-" -7 45&9 4-;5:" <"B < <==5C5" : -=5 89-;5
8"B59: <"B 4< 4595 6<: < = - <= ">=<"B <: 65== <: <
B&:=- <=" <"B 4< "- >--B 5"B A-8=B J5 <":6595B J
95J5==&-" -9 <::<::&"< &-" =&I<J5 4:=&75 =< J5 655"
45 "< &-" <"B A&C&= 6<9 45 ?89B59 -7 9<">5 4<B
:4-6" J- 4 79&5"B <"B 5"5? 4-6 5<:&= :-:=&>4 < J8=S
6<9D A-8=B J5 95?-C5B 45 75C59&:4 <;;9545":&-":-7
45 9- 5: <" : --D:4<;5 &" 45 7<?-8: J-"B -7 <::-A&<S
&-"! 64&A4 6<: < C&9 8<= :8:;5":&-" -7 =<6! <"B 45
-9><"&:< &-" -7 >--B :8JR5A :& " -< 8"&C59:<= C&>&=<"A5
A-??& 55 7-9 45 ;9-5A &-" -7 45 -C595&>" <"B 45
?;&95

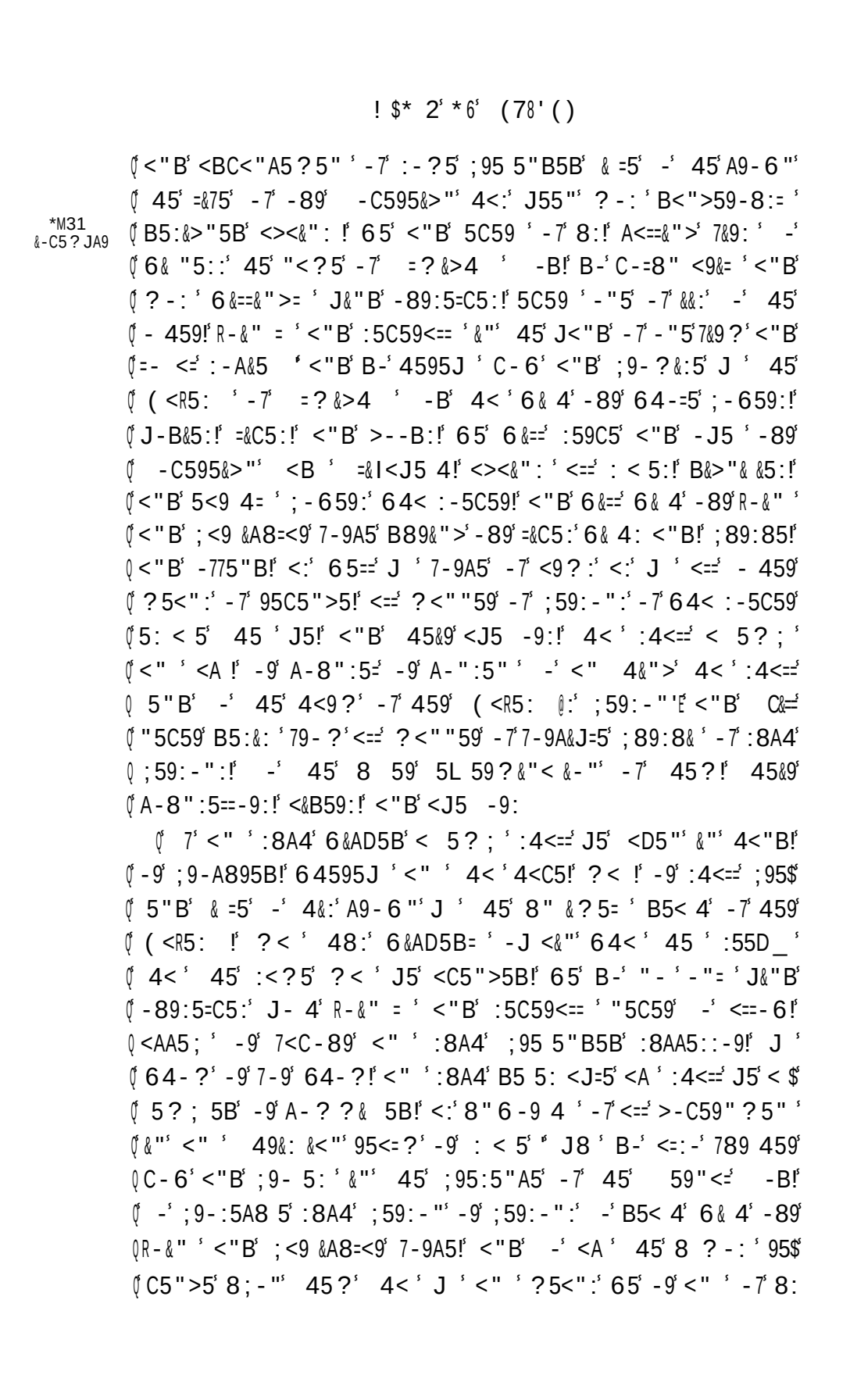
Q ' 6<:' <AA-9B5B' &"' -8"A&=!@ :<&B' 89>4=5 !' Q 4<' @' 4595' :4-8=B' J5' <' J-"B' -7' 8"&-"' ?<B5' J ' :8A4' "-J=5$ @ ?5"'<"B' - 459' ;9&"A&;<=' >5" =5?5"'<"B' -74A59:'<:':4-8=B' '&(*M31 $ Q=&D5' 4595-7!' C-=8" <9&=' -' J&"B' 45?:5=C5:' -' 459' @ (<R5: !' <"B' 5C59' -"5' -' - 459' 7-9' 45' B575"A5' -7' @459' (<R5: @:' ;59:-"' <><&":' 459' 5C&=' $6&==59:@H

7' 45' %855"' 6<:' <::<::&"< 5B' >-C59" ?5" ' 6-8=B' J5' <' <"' 5"B_ 5C59' A-??&::&-"' 6-8=B' J5' C-&B!' 5C5&' RR8J=&A' -77&A59' 95B8A5B' 7-9' 45' &?5' -' 45' A-"B& &-"' -7' <' ;9&C< 5' ?<"_ =<6!' -9B59!' <"B' <8 4-9&' 6-8=B' J5' <' <"' 5"B' &==' 45' 49-"5' 6<:' <><&"' 7&==5B' ' 6<:' -' ;95C5" ' :8A4' <' A< <: 9-;45' &"' 45' 7&9:' ';=<A5!' J8';9&"A&;<==' 4<' 45' ?;45' ?&>4' J5' 45=B' ->5 459' &"' 45' B&:&" 5>9< &-"' 64&A4' 6-8=B' 5":85' &7'&' -AA&?95B!' 4<' 89>4=5' <"B' <=:&"-$4<?':5=5A 5B' 45' =<">8<>5' &"' 64&A4' 4&:'95?<9D$ <J=5' B-A8?5"' 6<:'79<?5B

@ -9' <:' ?8A4!@ :-' &' 9<"!' @<:' =?&>4' -B' 4<:' @-9B<&"5B' D&">:!' W855":!' <"B' ;9&"A5:' -' 4<C5' B-?&"&-"' @<"B' 98=5' -C59' <=' 45&9' :8JR5A :!' <"B' -' ;95:59C5' 45?' @&"' 45' ;-::5::&-"' <"B' -J:59C< &-"' -7' 45' 985' 49&:&<"' @95=&>&-"!' <"B' &"' =&D5' :-9' 4<' <=' :8JR5A :' :4-8=B' =-C5!' Q75<9!' <"B' -J5' 45&9' ;9&"A5:' -' 45' 8?-:' -7' 45&9' @;-659!' <' <=' &?5:' -' 6& 4:<"B!' ;89:85!' <"B' :&WR;95::' @<=' ?<""59' -7' ;59:-":' 4<' :4<=' J' <"' ?5<":' &" 5"B' @<"B' < 5?;' <" 4&">' B<">59-8:' -9' 489 78=' -' 45' @4-"-89!' :<5!' -9' ;59:-"' -7' 45&9' -C595&>"_ 45957-95' Q65!' 64-:5' "<?5:' <95' -9' :4<=' J5' :8J:A9&J5B' -' 4&:' @69& &">!' J5?>' "< 89<=' J-9"' :8JR5A :' -7' 4&:' 95<=?!' <"B' @4<C&">' :-' >9<A&-8:' <' =<B !' -89' -C595&>"' =&I<J5 4!' J' @ -B@:' -9B&"<"A5' -89' ?-:' 9&>4 78=' %855"' 95&>"&">' -C59' @8:' 45:5' ?<" ' 5<9:' 6& 4'>95< '75=&A& !' -' -89' &"5:&?<$ @J=5' A-?7-9!' <"B' 7&"B&">' =< 5=' 4<' 7-9' 45' 789 459<"A5

I'H 89>4=5' -' -9B' -J4<?!' A' .,$ -C' 2!' *M31 $ 3 9 ' ==8:9<S &-":'-7' ">=&:4' &:-9

*M31
&-C5?JA9



! ' !7 (' *6' 8!9 ' : $

@ A<"' B5C&:5' <"B' B-' 7-9' 45&9' 8 59' -C59 49-6' <"B' 5L &9$'
@ ;< &-"
@ 5' A-"7&9?' 45' A-" 5" :' 4595-7' J ' -89' -< 4:!' A-9;-$' -C5?J59
@ 9<== ' <D5"' 8;-"' 45' -= ' C<">5=&: :!' 6& 4' 4&:' 5L$'
@ ;95::' A-"B& &-"!' 4<' "-' -"5' -7' 8:' :4<=='7-9' <" '95::5A'
@ -7' ;59:-"' -9' A<8:5:!' -9' 7-9' 75<9' -9' 956<9B!' :5;<9< 5'
@ -89:5=C5:'79-?' 4&:'<::-A&< &-"!' -9'7<&='&"' 45';9-:5A8 &-"'
@ 4595-7' B89&">' -89'=&C5:!' -"' ;<&"' -7' J5&">' J ' 45' 95:'
@ -7' 8:' ;9-:5A8 5B' <"B' :8;;95::5B' <:' ;59R895B';59:-":'
@ <"B';8J=&A'5"5?&5:' -' -B!' -89'%855"!'<"B'A-8" 9 _'
@ -'64&A4';8"&:4?5" '<"B';<&":'65'C-=8" <9&='':8J?&'
@ -89:5=C5:' <"B' 5C59 ' -7' 8:!' 6& 4-8 ' J5"57&' -7' <" '
@ A-=-89' -9';95 5"A5@H
45' <=<9?' 6<:' J8 ' --' 65==' 7-8"B5B!' 45' <"L&5 ' J8 '
--' "< 89<=!'64&A4'B&A < 5B' :-' 8"5L&7&";=5B' <' ?-C5?5" '
È 45' <::<::&"< &-"' -7' =&I<J5 4' 6<:' 45' 7&9:' &B5<' -7' 45'
?-:' B5C-8 ' -7' 45' < 4-=&A';9&5: :' 45';9&5: :' 45=B'
45' A-":A&5"A5' -7'5C59 '<9B5" ' -8 4' 64-'B5:&95B' <':4-9'
9-<B' -' <9<B&:5!' <"B' &"' 4-:5'B< :' 45'B&: <"A5'J5 655"'
45' &?<>&"< &-"' <"B' 5L5A8 &-"' -7' <' B5:;59< 5' B55B' 6<:'
=5::' 95?-5' 4<"' & ' &:' < ' ;95:5" H
45' 9&C ' -8"A&==-9:!' 45'R8B>5:!' 45' ?<>&: 9< 5:' -7

@ A ' -7' ::-A&< &-"!' -C ' *M31 '
9&" 5B' &"' 45' 7&9:' C-=8?5' -7' 45'
< 5' 9&<=:
K ?-">' <=:&">4<?@:' =--:5'
;<;59:' -7' 4&:' 5<9!' ;95:59C5B' J '
<AA&B5" '<"B' ;9-J<J=' -"5' -7'<' 4-8S
:<"B!' &:' <"' <AA-&? !' 8"::&>"5B!' -7'<'
@ :;55A4' -7'<'7&&<9'&"' 8"D&9D@
@ "' ==' <&" :' eHC5'<'79&<9' -7' 45'
9B59' -7' ' 9<"A&:!' J5&">' C&A<9' -7'
45' :<&B' 9&<9 !' 5" 59&">' &" -' <=D'
06& 4' ?5'&"' 45':<&B' 9&<9 ' -8A4&">'
45'%855"!':<&B'8" -'?5' 4<'&7'459'
(<R5: ' 6<:' -"A5' B&:;< A45B' <"B'
>-"5!' 4<' 45"' <==' 49&: 5"B-?
6-8=B' J5' &"' ;5<A5' <"B' W8&5 "5::"
<"B' <D&">' ?5' 6& 4' 4&?' &" -' 4&:'
A4<?J59!'45':4565B'?5' 45' ;&A 895:'
-7' 45' 9&"A5' -7' 9<">5' <"B' 45'
89>8"B&<"' 64&A4'D&==5B' 4&?!' 6& 4'
45' ?<""59' -7' 4&:' A985=' 5L5A8 &-"'
45'79&<9':<&B' -' ?5' -' -8' J54-=B'
<"B' :55' 4&:' ;&A 895'i' --D' 4-6'
4&:' 89>8"B&<"' B&B'D&==' 4&:';9&"A5'
"':8A4'?<""59' 4595'6&==' "-'6<"'
<"-459' 89>8"B&<"' -' D&==' 4<'
6&AD5B'6-?<"!'<"B' 4<'J57-95'=-">'
7955' 45'A-??-"'65<=4'-7'<==' 49&:S
5"B-?E_ =44'5*. $!3' *M31

(&BB=5:5L! 5C59 -"5 &"" -9 <J-8 -"B-"" 64-" 45=B
$$$$$$ -77&A5 8"B59 45 9-6"! ><C5 45&9 :&>"< 895:" &?9"5$
-C-?59 B&< 5=R!" <"B A-;&5:" 6595 :5" 9-8"B 45 ">=&:4 A-8" &5:"
-" 45 =-9B:" =&58 5"<" :" <"B 45 ?< -9:" -7 45 -6":!
&"C& &"> 5C59 =- <=" :8JR5A !" -" 5?@-=" 4&:" "<?5 45
A-8" 9 95;=&5B 6& 4 <AA=<?< &-":! 8"B&: 89J5B J <" B&:S
:5" &5" C-&A5 45 =- <=" :&>"5B &"" <";<::&-"" -7 B5=&>4 "
45 B&:=- <=" J5A<8:5 45 B<95B "-9578:5 -9B 59J !"
64-:5 "<?5 6<:" -"" 45 &":8995A &-"<9 =&: !" :8??-"5B
45 :8:;5A 5B >5" 9 -7 <"A<:4&95 <"B 45:4&95 -"
45: 59 <45B9<= 45 <9=" -"" 4&:" D"55:" 95A5&C5B 45
-<4 79-?E 45 &:4-;_ 45 &:4-;" <"B -9B 9<">5
95A5&C5B 45 -<4 79-?" 45 <9=_ <"B 45"" &"" >9-8;:" -7
:&L 45 5" &95 A-?R <" :6-95 <7 59 45?!" @"-" -"5 J
Q 6-9B -9 A-8" 5"<"A5 :55?&">" ?<=A-" 5" @H

45 :A5"5 < 45: 59 6<:" 95;5< 5B -9 ;<9<==5=5B &""
5C59 A& &"" ">=<"B 6<:" <"" &" &?< &-"" -"" 45;<9
-7 45 "< &-"" -" 45 %855"" -7 A-:" 4< :45 :4-8=B 4<C5
"-" <AA5::" 45 49-"5 J 6< -7 <::<::&"< &-"" <9=&<S
?5" 6<:" :8??-"5B -" >&C5 45 <::-A&< &-"" 45 <8 4-S
9& -7 =<6!" <"B 789 459!" :&"A5 & 6<:" -" <9=&<?5" 4<
45 %855"" -7 A-:" <775A 5B <=6< :" -95759 459 A=<&?!" &
6<:" <::5?J=5B @7-9 45 B&:<J=&"" -7 :8A4 <:!" ;95 5"B&">
@ & =5 -" 45 9-6"! :4-8=B :55D -"B&: 89J 459 (<R5: @:"
@ ;-::5::&-"" B89&"" 459 =&75 @H

=&I<J5 4" ?5<"64&=5! ;95;<95B -"A-":&B59 45 ;9-S
;-:<=:" 64&A4 6595 <J-8 -"J5 ?<B5 -" 459 J 45 %855""
-7 A-:" -"" -"5 :&B5 <"B J <?5:" -"" 45 - 459!" <"B -"
95< 6& 4 -"5 -9 6& 4 J- 4! 5& 459 R-&" = -9 :5C59<== !"
<AA-9B&"" -" 45 "< 895 -7 45&9 ;9-;-:<=: ==" ;<9 &5:"
6595 ;=< &"" 7<=:5 45 %855"" -7 A-:" 6<:" ;95;<9&"" -" :65<9 4< :45 6-8=B "- :55D -"B&: 89J 45 ;5<A5

H -9B 59J -" 45 <9=" -7 5&S K E <=:&">4<?" -" <B=59!" A *,$"
A5: 59!" ",$*, _ =44 5*. $!3 .,!_ =44 ( ) ! /" + '

-7' ">=<"B' B89&">' =&I<J5 4@:' =&75!' k 64&=5 ;9&C< 5=' :45 6<:' J&BB&"-" 45' < 4-=&A' -659:' >-' -"' /6& 4' 45&9' &"C<:&-"' <' <=='4<I<9B:' <?5:'6<:' ;95 5"B&">' -' 4&:' -C?A9 ?-459' 4<' &' 6<:'7-9' 459' :<D5'<"B' "-' 4&:' -6"' 4<' 45' 6<:' :55D&">' <' :5;<9< 5' 95< !' 645"' 4&:' 95<=' 6&:4' 6<:' 4<!' :4`' :4-8=B' 95?<&"' &"' A-"7&"5?5"!' <"B' 4<' 459' A=<&?:' :4-8=B' J5' ;-: ;-"5B' -' 4&:' -6"' =&I<S J5 4!' 64-' 4<B' 7-8"B' <' =<:' 4<' 45' <==&<"A5' -7' A- S =<"B' 6<:' "5A5::<9' -' 459' C59' 5L&: 5"A5!' 5' ?5<"' -' B9&C5' <:' 4<9B' <' J<9><&"' <:' A&9A8?: <"A5:' 6-8=B' <==-6 45!' &' &:' 5C&B5"!' ?-:' 75<95B' (<9' 8<9' <=:&">$' 4<?' ?-:' 75<95B' 459' :-"' <=:&">4<?' 7-9' -"A5' 6<:' <' 7<8=' &"' 4&:' R8B>?5"' -7' A4<9<A 59' 5' 6<:' 8"<J=5' -' A-"A5&C5' 4<' <?5:' 6-8=B' J5' <:' &"B&775 95"' -' 4&:' ?-459@:' 7< 5' <:' &"' 7<A' 45' 6<:' 5' <BC&:5B!' 45957-95!' 4<' 59?:' :4-8=B' 7&9:' J5' ?<B5' 6& 4' 45' %855"' -7' A- :!' <"B' 45' 95>95 5B' 4<' 4&:' ?&: 95::' B&:<>955B' 6& 4' 4&? H

45' (<: 59' -7' 9<' 6<:' A-?&">' 8;' -' 95;95:5"' <?5:' (<9' 8<9' 6<:' -' :5"B' 459' 95"A4' :5A95 <9 ! (' <8' 45' 7&9:' 45<9&">' 6<:' <::&>"5B' -' 9< !' <"B' <8@:' A-?&">' 6<:' ;-: ;-"5B' &==' 9< @:' ?5::<>5' 4<B' J55"' B&>5: 5B' <"B' 4&:' =5<"&">:' <:A59 <&"5B' 5;-9' A<==5B' 4&?' <' >--B' <4-=&A' <"B' (' <B5C- 5B' :59C<"' -' 45' (' A- A4' %855"@ 4-8=B' 4&:' J5' 985' &' 6<:' 8"B5S :&9<J=5' 4<' <8' <"B' 45' :4-8=B' 5"A-8" 59' 5<A4' - 459 -8=B' 9<' J5'><&"5B' -C59!' 45' 45=B' <"B' A-8=B' 95C5<=' 45

H@' <?' -7' -;&"&-"' 4<' 6& 4-8' 4<' %855"@:' <::5"!' 64-' B- 4' <=S ->5 459' B&95A' 45' &">!' 4595' 6&==' "-' 4-=B' J5' <D5"' -7' A- =<"B!' <"B' 45957-95' ' 4<C5' J55"' <=6< :' ;59S :8<B5B' 4<' :-?5' 9&<=' :4-8=B' 45' ?<B5' -7' 459' -7759:!' 6& 4' :8A4' A<8S &-":' <:' :45' ;9-?&:5 4' -' >&C5!' 6745956& 4' ':55' "-' A<8:5' J8' 4< 459' (<R5:' :4-8=B' 95:' :< &:7&5B' 45' &?;5B&?5"' >9-6:' ;9&"A&;<==' 49-8>4'<R5<=-8:' A-"A5&' 4<' 5& 459' -7' 45' 6-' ;9&"A5::5:' 4<4' -7' 45' - 459!' 64&A4' ':55' 6&==' 4<9B=' 45' 95?-C5B@_' '8!(7 '.' $*' 4')8' A' *,$1,' =44' 2' %C &' 67' + '

: A95 : - 7 45 <9&: A - " : ; &9<A 5 4<B B&:A8::5B 45
$$$$$$ B5 <&=: - 7 45 &"C<:&- " 6 & 4 (5"B - I <"B 45 8"A&-
=-6? 59 D8 6 ; 95A&:5= 45 C&56 : - 7 45 >95< - 659: <J - 8
<?5: 45 6<: ?<: 59 - 7 <== 45&9 :5A95 :! <"B <: 65== <:
<" =&C&">? <" A - 8=B 5<A4 =&I<J5 4 4 - 6 - B575< 45? H
&: - : 5" :&J=5 ?&::&- "! 645" 45 <; ;5<95B! 6<: -
95W8&95 45 5L ; 8=:&- " - 7 45 5L&=5B " - J=5?5" 7 4&:
A - "B& &- " 6<: <AA5B5B - ! 45 <9= - 7 99<" 6<: 95<B
- J5 9< - =&I<J5 4 45 "< 895 - 7 45 -7759: 64&A4 4<B
J55" ?<B5 - 4&: ?<: 59 J 45 < 4 -=&A:! <"B < B575"$
:&C5 =5<>85 ?&>4 J5 &? ?5B&< 5= ?<B5 J5 655" A - S
=<"B <"B ">=<"B! 45 &&s4<J& <" : - 7 5<A4 A - 8" = J5&">
?<B5 7955 - 7 45 - 459 <: < ; 95=8B5 - 45&9 <; ; 9 - <A4&">
&"A - 9; - 9< &- " H 45 "<?5 - 7 45 %855" - 7 A - : 6<:
" - ?5" &- "5B &" 7< @: &": 98A &- ": ! " - 9 6<: & ?5"S
&- "5B 5& 459 &" < =5 59 64&A4 9< J9 - 8>4 6& 4 4&?
79 - ? 45 &" > - 89>4=5 H

H 45 9A4J&:4 - ; - 7 =<:>- 6 - 45%855" - 7 A - :! 5A *M31 _ (( ) ! / - + &;459

K 4&: A - "A5::&- "! & 6<: 4 - 8>4 ! 6 - 8=B ; =5<:895 ">=<"B >95< = @_ ($ +3$!*('6 * . $ ' 8 * 6' '($*' $ = ' $ ' *6' !D'2 *M31 = 44 43*$8' ( )

O 45 =5 59 &: < A89&-8: : ; 5A&?5" - 7 <?5:@: 5<9= A - ? ; - :& &- " - ? 65== J5=-C& <"B<::89& 98: A-8:&"! ? -9B 89=5 ! 95<:8959 (-9B5 <"B -8:&"!

=5L<"B59! 45 >95< A - "W859-89 - 7 45 6 - 9=B5! 95<B&">' - "5 B< <AS A-9B&">' - 4&: <AA8: - ?5 5 ?<" "59 - " 45 ==&<B5: - 7 - ?59! W84&=D 45 5C59 A<99& <J - 8 6& 4 4&?! 45 B&B J8&&: 7-9 4 &" 4&9 6 - 9B&: 7 - == - 6&"> _ 5:$ 55?5 " - ! {<&B 45! A4&==5: - 4<C5 J5"5 : - 4<; ; 7-9 45 >- - B :8AA5: : 45 4<B &" 45 65&9&: <: 45 6<: &" 4<C&">' : - 6 - 9 4&5 <"5 98?; 5 - 89 - J=<95 <J9 - B5&?? - 9 <= ! 5< - <== ; - : 59&S &5: <"B <<>5: 4&: 6 - 9 4 7<?5 <: - ?595 6<: (-9B! <=J5& &"B5&B A4&==5: 6<: - ?& 6& 4 : - B&C&"5 <"B 9<95 C59 8: <: &" 4< A<A5 A<" - " "- 6< : J5 R8: = A - ?; <&95B 8" - 4&?! <"B 4< - " 45 - 459 ; - &" 5 B - 7<9 5LA5== :8A45 <"5 J=&"B5 J5>S >&">' 75== - 6 <: - ?595! & &" - "5 4&">' ?< J5 A - ?; <&9& 8" - 4&?! ?5&"5 A4&==5: ! - 6& 4< 4<&95 &: : - 6&:5 <"B 98: &5 <"5 A - 8" :5== - 89 <: 5 <L5 <J - 8 4&9 - 7 W84 - &:5 <?& &` 4<C5 ?<&B A4 - &:5 <J - C5 <== 8 459 9&"A5: &7 : - : 45 6&== <AA5; - 7 ?5! W84 - ?< <"B <?: <8::89& 6&== 789 459 4< <?& &` W84&=D " - 6 J5 45 J5<9<9 45&9 - 7 ? <?J<::<B - 8& B - A9<C5 - 7 459 %84 - ?5 4<C5 A - ? ?<"B& " - - "= - & ?; <9 5 4&: A - ? ?&::&- "8" - 8! 4 - <=: - - 8:5 - 89 ; 95:A9&; &" <== 4<&:5 ?< 59: 45 A<8:5 4< ? - C&: ?5 : - B -

5' 6<:' 95A5&C5B' 6& 4' A-=B' A89&-:& !' 64&A4!' 4-65C59!' 89"5B' :--"' -'&" 595:' <:' 4&:' A4<9<A 59' 8"7-=B5B' & :5=7' 5 59:' 79-?' <=:&">4<?' -' 8":B-"!' <"B' 79-?' 45' %855"' -' 45' <9=' -7' 99<"!' B5:A9&J5B' 4&:' A-"B& &-":' <:' &?;-::&J=5' <"B' 4&:' A-??8"&A< &-":' <:' 8"&?;-9 <" ' "' <' 756' B< :' 45' 6<:' 95C5<=&">' 4&?:5=7' <:' 95<B ' -' :5=='4&:' :59C&A5:' -' ">=<"B!' -' J5 9< ' 4&:' ;<9-"!' <"B' ?<D5' 4&?:5=7' 45' &": 98?5" ' -7' <' 95C-=8 &-"' 64&A4' 6-8=B' 95;=<A5' 45' &">' &"' 45' ;-659' -7' ">8:' <"B' 45' 9-5:<" :' 45' %855"' -7' A-:' 6<:' 69&&">' -' 4&?' &"' 8":8:;5A &">' A-"7&B5"A5!' J5=&5C&">' 4&?' -' J5' 5" &95=' 459:' 45' A<8 &-"5B' 4&?' <><&":' =&I<J5 4@:' B8;=&A& ' ' :45' B&95A 5B' 4&?!' <:' 4&:' ?&:95::!' -' :;5<D' &"' 459' "<?5' <:' 65==' <:' 459' :-"@:!' <"B' ?<D5' 8:5' -7' A-=<"B' &"' 459' &" 595:' J ' <;;5<=&">' -' =&I<J5 4e:' 75<9:H' 8' 9<' 4<B' <D5"' 45' ?5<:895' -7' 45' :& 8<&-"' 5' A-":&B595B' 4<' =&I<J5 4' 6-8=B' 6&"!' <"B' 4<' 459' A<8:5' 6<:' 4595S 7-95' 45' :<75:' -' :<"B' J ' (<8C&::&a95!' 64-' 6<:' 6<A4&">' 4&?!' 6<:' ;8II=5B' 5' :<6' 4<' 9<' 6<:' 9&??&">!' J8' 45' A-8=B' "-' B&:&">8&:4' 645 459' 45' B-8J=5' ;=<' 6<:' 4&:' -6"' -9' 45' &">@:' 5' 4<B' <:A59S <&"5B' 4<' <?5:' --' 6<:' 6&==&">' -' ?<D5' 4&:' J<9><&"

&:' 45' 95;-&9' ' 4<C5' 4<9B' 4-6' 5' 4<C5' 45"5' 45' ?<<' <J-8' -89':-85$ 9<&>"5' 4&:5' ?5:' J ><"5' W84-' 45:' 4<B' 45' A4&57' <"B' -"=' A<&95' -7' 45' 65==' B-&">' -7' ?' <77<&95:' 4<&9!' <"B' 4<C&">' B&95A &' 4&:' J59<9' 6& 4' "&<&9' :;5A&<=' <"B' :5A95' A-??&::&-"' 4<"' <"' ' 5C59' B&95A &' J57-95' ' 4<C5' !>5C&"' A4<9>5' J<&97-&95' -' B55==' R=?<&:' ::5A&<==' <"B' :5A95&=' 6& 4' -8' "&L' 45' W85"5!' -89' B5<&$5:' :&:59!' <:' 45' 6&==' :4<6' -8' ?<&9' <' =5"> 4!' W84-?5' 5<9"5:=' B5:&&&8>' -8' -' A95B&' <:' ? :5=7' 6& 4' <::89S <"A5' -7' -89' A-"&"58<"A5' &"' 45'

T' #

789 459&">' -7'<==' ? '<B--:' 4<&95'<"B' :;5A&<==' 4&:' ;95:5"!' 'A-??&' -8!' ?'=-9B' <"B' A-8:&"!' -' -BB&:' 4-=' ;9-5A &-"

@' 9-?' ? ';<==<&:' -7'4-= 98B4-8:5!' 45' *1 4' -7' A' *M31

@ -89'<::89&'79&5"B'<"B' A-8:&"!

:' ; -'% <

_ 8 ->9<;4'5"B-9:5B' J' 89>4=5 !' @' 45' &">' -7' A-:' J' 45' (<:59' -7' 9< @ =44'43*$8'()

E' 45' %855"' -7' A-:' -' 45' (<:59' -7' 9< !' A' &$8!' *M31 _ 3 /' --'C-='C&

*M31
-C5?J59

<=-"5 &7 45 A-8=B -J <&" J5 59 59?: J : :5;<9< &"> 4&?:5=7 79-?4&: ?- 459 H

VW3h -C5?J59 B5>955:!J8 J B5>955:-"= ! 45 98 4B<6"5B -" 45 %855" -7 A- : " 4&: =5 59: - 459!$ <?5: 4<B@ ;9-75::5B 4&?:5=7 45 ?-: B8 &78= -7 :-": 45 48B &?<>&"5B 4< 45 6<!:"-6 <J-8 -A-":5" J 45 =-">$ <>& < 5B <::-A&< &-" -7 459:5=7 &" 45 A- A4 A9-6" 6& 4 4&? 45 =5<9" &": 5<B 4< 9< 4<B -=B 45 %855"! &" <?5:@: "<?5! 4< & " "5C59 A-8=B J5! <"B 6& 4 <" 8"B57&"5B :8:;&A-" :45 69- 5! - D"-6 64< 45 ?5<" =&I<J5 4 J5&"> "-6 :< &:7&5B 4< 4595 6<:"-K B<">59! 4<B A-":5" 5B - 45 A-?&"> 8; -7 (<8 (<9 8<9 :5" <= 5 59 J 4&?!:< &"> 4< :45 9578:5B 459 A-":5" -<:5;<9< 5 95< 45&":&: 5B 4< 459 -6" <"B 459 :-"@: &" 595: : :4-8=B J5 &B5" &7&5B 45! <: %855" -7 A- =<"B! :45 :<&B! 6<: ?<D&"> < 95< 6& 4 <:&: 59 :-C595&>"! <"B & 6<: < ?595 A-"B5:A5":&-" -" 459 ;<9 -<==-6 459 :-" -" 4<C5 <C-&A5 &" &H

8A4 <-"5 < :8A4 <?-?5" :456: 4-6 =& =5 :45 4<B 95<=&:5B 45 ;-::&J&=& -7 <?5:@: <A 8<== 7<&=&"> 459 &: :8AA5::5:@4<B 95<== J55" 459: 45 & 6<: <"B "- 45! 64- J &"A5::<" 577-9 ! <"B J 45 =<C&:4 8:5 -7 459 95"A4 B-69 ! 4<B -C59 49-@6" (-9 -" <"BH -69&5 <"B J9-D5" 8; 45 9- 5: <" ;<9 45 6<: -775"B&">! <: :45 65== D"56! <== 45 5<9"5: < 4-=&A: <J9-<B! J A-":5" &"> - 95< < <==' J8 :45 ;&"5B 7-9 =&J59 ! <"B :45 J5=&5C5B 4< 45 < & 8B5 -7 A- =<"B 6-8=B A-?;5= =&I<J5 4 - :5 459 7955

<8 --D 6& 4 4&? -" -"B-" <@"-5 -7 95?5?$ @J9<"A5:@ -" 45 B&:;-:& &-" -6<9B:459 -7 5<A4 ;7 45 ?5?J59:-7 =&I<J5 4@: -8"A&= < -"@: "<?5: --B 7&9: < -"! 64-:5 :-=& <9 ?59& 4<B J55" 4&: :8;$

K (<8C&::&a95 -=&5 &"> -7 K 45 %855" -7 A- : - 45 (<: 59 9<"A5! -C 8= ' > ! C-= -7 9< ! 5A *1$.1$_ -9&K! +) ,)

;-:5B' <7 5A &-"' 7-9' 4&:' :-C595&>"!' 4<B' ?<" ' &?5:' :5" '
(<9 ' 8<&&"' s,-9B' 4<' &7' 45' %855"' B&5B' 45' 6-8=B'
75 A4' 459' -' -"B-"' 6& 4' 45' 9- <=' >8<9B H' 5&A5: 59' '&(*M31 # $
4<B' J55"' 459' 79&5"B' <=:-' o=' 4&:' ?<99&<>5' 6& 4' 5 &A5'
"-P :' J8 ' 4&:' 6&75@:' &"7=85"A5' <"B' 4&:' B5:&>":' -"'
<B ' 9<J5==<' 7-9' 4&:' :-"' 4<B' A-"C59 5B' 4&?' &" -' <'
B<">59-8:' 5"5? ' 8" &">B-"' :45' =&D5B' 65==!' &"' :;& 5'
-7' 4&:' ;95 5":&-":' -' 45' :8AA5::&-"!' <"B' 89>4=5 ' :45'
=&D5B' 5:;5A&<== ' 65==!' <:' <"' -=B' 5L;59&5"A5B' : < 5:?<"!'
64-' B5:&95B' 45' >--B' -7' 4&:' A-8" 9 ' &"' B&:;<::&-"< 5'
;< 9&- &:?

45' A4<9>5B' <8' -' J5' >8&B5B' 5" &95= ' &"' <==' 4<' ' 45'
B&B' J ' 89>4=5 @:' <BC&A5 H' -' -9B' 4<9=5:' -6<9B'
<"B' -' 45' 4<"A5==-9' 9-?=5 ' :45' :5" ' <775A &-"< 5'
?5::<>5:!' <"B' -' &9' 9<"A&:' "-P :' <' ;=5<:<" ' 95S
?&"B59' -7H459' 7&9:' <AW8<&" <"A5' 6& 4' 4&?' <' <9=&:=5 O'
C&B5" = ' :45' 75=' <::895B' -7' 45' :8;;-9' -7' <P' 45'
-8"A&=5LA5;' 5&A5: 59' <"B' <=:&">4<?'' <"B' <=:&">$'
4<&"@:' B&:;-:& &-"' &:' ;9-C5B' J ' 4&:' -6"' =5 59:' -' 4<C5'
J55"' 7<C-89<J=5' <=:-V

-' 7<9' <:' 45' 95< ' 6<:' A-"A59"5B!' <8@:' &": 98A &-":'
6595' 45' C59 ' <?;=5: ' 5' A<?5' ;95;<95B' -' A-"A5B5'
-9' <" &A&;< 5' <" ' B5?<"B' 64&A4' =&I<J5 4' A-8=B' ?<D5'
"' <BB& &-"' -' 45' 5A4"&A<=' A-"A5::&-":' -' 64&A4' :45'
4<B' <>955B' <=95<B !' (<9 ' 8<9 !';9-?&:5B' 49-8>4' 4&?'
-' B5A=<95' ;8J=&A=' J57-95' 89-;5' 4<' 45' %855"' -7'
">=<"B' 6<:' 45"A57-96<9B' -' J5' 459' A=-:5:' 79&5"B' -'
:65<9' -' 7-9>5' 459' 69-">:' <"B' "5C59' :55D' -' 95C5">5

Ç' < -"' =8 ' <' 7<&A ' B&C59:' J-":'
-77&A5:!' =8 ' -779<" ' ;<9' =<' -" 5:BJ' B5'
4956:J89 ' W85' =<' - "5' B@ ">=5S
5995' C5"<" ' d' B5A5B59!' &=' :-9-&' ;95:' '
B5' C5"&9' 9-8C59' =<' - "5' B@ :A-::5'
<C5A' =<' ><9B5 Ç< . !: '(3 ' $*'
,'+' ZC' *M31' = 4 ' (4') ! /'

Ķ Ç : C&58=L' 5 ';98B5" 'A-":5&=&59'
W8&' < ?5' =5' J&5"' B5' :-"' ;< :' :<":'
;<::&-"' " ' 7<A &-" ' <8' < ' A-?S
?<"B?5" ' B5' ;9-A`B59' 5"' -8 ' 5 '
;<9 -8 ';<9' :-"' <BC&:' 5 ' B&95A &-" @_'
:!)

6 7' + '

&" 59A5B5 7-9 45 J<"&:45B -9B:! -95"-8"A5
$$$$$$ -;5 &8:@: 8==! ?<D5 <=5<>85 6& 4 ">=<"B! -775"$
-C5=J59 :&CA <"B B575":&C5! <"B 459:5=7 :8J:A9&J5 4` J-"B 7-9
45 ;9- 5A &-" -7 =&I<J5 4@: =&75 H ==: :45 <:D5B 7-9
6<: <: ;55B 95:-=8 &-"
E 45 5775A -7 9< @: ;95:5"A5 8;-" =&I<J5 4 6<:
C&:&J=5 &" 45 &? ?5B&< 5 <":659 45 %855" -7 A-:
6<: -=B 4< &": 5<B -7 <=D&">-7 7-9>5 &"77 459
69-">: :45 -8>4 9< 459 -<AD"-6=5B>5 45 ;9<A &A5:
-7 64&A4 :45 4<B J55" >8&= J57-95 <"B :&"A5 459
A-?&">&" - "><"B 45 ?8: "-'-"= 95"-8"A5 45
8== -7 45 -;5 &" 459 7<C-89! J8 :45 ?8: B5A=<95
45 9-6" -7 ">=<"B -J5 &"B5;5"B5" -7<" 6-9=B=
;-5" <5 45 ?8: <AD"-6=5B>5 &" 7-9?: 4<"5& 459
459 (<R5: "-9<" K - 459 =<678= &">-9 %855" A-8=B
J5 B5;9&C5B J 45 A5":895: -7 <" ;59:-" 64< 5C59
8;-" 5<9 4 45 ?&>4 :8J:A9&J5 45 J-"B &7 :45
;=5<:5B! J8 :45 6<: A-=B= -=B 4< &'6<:8""5A5::<9 !
<"B 4< :;55B &" :- >9<C5 <?< 59 6<: &?;-::&J=5 H
45 %855" -7 A-:! 4-65C59! 4<C&">A-??& 5B 459S
:5=7 -A-"A5::&-":! 6<: "- -J5 95;5==5B 45 :&>"5B
45 J-"B :45 69-5 -45 9A4J&:4-;' -7 $ =<:>-6!
B5:&9&">4&?' -J&B 45 8&:5:<J<"B-" 45 B5:&>":
64&A4 45 4<B 7-9?5B &" 459 7<C-89! <"B 5==&">4&?
4< 45"A57-96<9B :45 &" 5"B5B -:55D =&I<J5 4@:
7<C-89 45 =5 59 6<: 69& 5" ;594<;: -J5 :55"!
J8 &'-'69& 5" <"B &'6<: :5" (<8C&::&a95 ;95::5B
=&I<J5 4 6& 4 459 ;9-?&:5: <B A-=<"B ;95::5B
459<=:-!4<B <?5:'95:-=8 5='&B5" &7&5B 4&?:5=7 6& 4 4&:
?-459! <"B B5?<"B5B! <' 45 :&B5 -7 9<"A5! <>5"59<=
95< J5 655" 45 4955 "<&-"! -7 64&A4 459 95=5<:5
6<: -J5 <A-"B&&-"! =&I<J5 4 4<B 5"><>5B 459:5=7 :-
B55;= 4< :45 A-8=B "-4<C5 9578:5B 45 %855" -7

@ <8@:'<9 &A=5:! 5A '*M31 _ = 44 K ":659 -' <8! 5A '*M3H$
1 ('%8&&8 ' ' + ' = 44 :!)

A-:' 6<:' &"' 7<A' 95<B' -' &5' 459:5=7' 4<"B' <"B' 7--' &"' D"-:' 64&A4' :45' 6-8=B' 4<C5' 7-8"B' &' 4<9B' -' 8"B-' 45' 6<:' B5:;59< 5' -7' 45=;' <"B' 6<:' 6&==&">' -' <>955' -' 65?59 <" 4&">' 59' =5 59' -' ">=57&5=B' 4<B' ;9-B8A5B' "-' 5775A' <9?<' 69-5' -' 459' &"' 59?:' -7' >5"59<=;-=& 5S "5::!' J8' 95>95 &">' 4<' 45' 6<:' ;95C5" 5B' J' A&9A8?S :<"A5:' 79-?' B5C-&">' 4&?:5=7!' <:' 45' B5:4K5B!' -' 459' A<8:5 H' 45' 9A4J&:4-;' -7' =<:>-6' 95;-9 5B' 79-?' <9&:' 4<' 45' 8D5' -7' 8&:5' 6<:' 6&==&">' <:' 5C59!' J8' 4< 45' :<5' -7' 9<"A5' 7-9J<B5' 4&?' <' ;95:5"' -' ?-C5' 7-9' 459' 45' <995:' <"B' A-"75::&-"' -7' 9&A4-"' 4<B' B&:45<9 5"5B' 459' 79&5"B:' <"B' A95< 5B' "56' B&77&A8=&5:H' 4=9' >-":!' <"' ">=&:4' 9578>55' &"' 45' 5 459=<"B:!' 64-' 4<B' J55"' 5:;5A&<==' <A &C`' 7-9' 459!' 69-5' 4<' 4&=&;' 4<B' B5:&>":' -7' 4&:' -6"' -"' ">=<"B!' <"B' 6-8=B' Q "5C59' 45=;' 459' -' 64<' 45' >9<:;5B' <7 59' 4&?:5=7' &7' 45' 4<B' A<95B' 95<==' -' >&C5' 459' 45' A9-6"' 45' 6-8=B' 4<C5' B-"5' &'=-">' :&"A5!' Q -' 459' =&D&">' &7' "-' -' 4&:'' E J8' Q 4<' 45' 5" 59;9&:5' :-' 789&-8:=' ;95 5"B5B' Q 4<B' "5C59' J55"' ?-95' 4<"' <:9< <>5? K' 9-?' -?5!'& :5=7' 45' "56:' 6<:' 4<9B=' J5 59' a95' =<' 85!' 64-!' B&:S >8&:5B' <:' <><9B5"59!' 4<B' J55"' 459' A4<;=<&"' <' 4577&5=B!' 4<B' >-"5' -C59' -' 9-8:5' 45' =<">8&B' &" 595:' -7' 45' <4-=&A' A-89:' 45' 8D5' -7' -99<&"5' 4<B' -=B' 4&?' 4<' "-=&&">' A-8=B' J5' B-"5' &==' <?5:' 6<:' <' <4-=&A 5' 4<B' -=B' 45' -;5' 4<' 45' <;<4' -7' ;<&"' 6<:' B9&C&">' 4&:' ?&:95::' -' Q <"' <AA-9B' Q 6& 4' ">=<"B' 45' -;5' 4<B' :<&B' 4<' 45' 4<B' B-"5' 4&:' J5:!' J8' A-8=B' 5775A' "-4&">' <"B' 4<B' :55?5B' -' 4&"D!' &"B55B!' 4<' &7' 45' %855"' -7' A-:' 6<:' <:' >--B' <' <4-=&A' <:' :45' ;95S 5"B5B' -' J5!' :45' -8>4' "-' -' :49&"D' 79-?' ?-95' ;9-S 9<A 5B' :87759&">' &"' 45' A<8:5' -7' 45' 489A4' Q 4<' ' @

* <9?<' -' 45' %855"' -7' A-:!' 45' %855"' -7' A-:!' 5A' *M31 _ 5A' *M31 _ = 44' 4'), /' = 44' :!)

O >-":' -' 45' %855"' -7' A-:!

K' 45' 9A4J&:4-;' -7' =<:>-6' -' 5A' *1$.1!! _ = 44' :!)

LLL"

*M3h
5A5 ? J59

4&: B=&"5: : 4<B 5LA=<&?5B! 6 &== :45 " ; 6! <7 59 4<C&"> ; 59:5C595B : - =-">! A-?5 - <" <>955?5" 6& 4 4595 &A: i &== :45 B&:4-"-89 459:5=7 -" 5<9 4 <"B &?;59&= 459 &??-9 <= :-8=i 4< e -""&C5 6& 4 5I5J5=! <== 459:5=7 6& 4 45 6-9: &"7&B5= <"B ;59:5$ A8 -9 -7 < 4--&A: 4< 45 6-9=B A-" <&"5Bé 6<: -- ?-": 9-8: - J5 J545C5B @H 4<9=5: <>5 <"B 4&: A-?;<"&-": :8"> 45 :<?5 :-"> &"<== ! ">=5$ 7&5=B! 79-? (<B9&B! 6<: -J=&>5B - :< 4< :45 ?8: =--D 7-9 "- &" 597595"A5 &== 5& 459 =<"B59: 6<: A-"S W8595B -9 =&I<J5 4 B5<B! -9 &== < 95C-=8 &-" 4<B J9-D5" -8 &" ">=<"B C5" (5"B-I<! 5<>59 <: 45 4<B J55"! 6<: "-6 7-9 B5=< ! <"B B&B "- 5C5" 6&:4 459 -5:A<;5 ">=57&5=B :<&B 45 4<B -=B 4&=&; 4< &7 :45 7-8"B 459:5=7 BJ:59 5B! <7 59 J5<9&"> 459 A9-::7-9 :- ?<" 5<9:! :45 ?&>4 A-?5 - 59?: 6& 4 459 -;;95::-9: & 6<: < ?&9<A=5 4< :45 4<B 45=B -8 :- =-"> 8 4&=&; 4<B - 459 C&56:7-9 45:5 =5?5" -7 ">=<"B 59 :-"@: 4<C&"> <D5" -" 4&?:5=7 45 :8S ;95?<A -7 45 489A4 -7 A- =<"B! 4<B A--=5B 45 -;5 6<: 95;-9 5B 79-? =<"B59: 4< 45 :8;;-:5B ;<9 <?-"> 45 ">=&:4 A& &I5":! 64- 6595 - <D5 <9?: &" 459 7<C-89! 6<: < ?595 B5=8:&-" 4-:5 =&D5= - 7&>4 7-9 459 6595 @756 &" "8?J59! ;<9 &<=! <"B @ ;<::&-"< 5!@ <"B 4< <" &"C<:&-" A-8=B "- ;98B5" = J5 < 5?; 5B 6& 4 =5:: 4<" 7-9 4-8:<"B ?5" H

5== ?&>4 :8A4 =5 59: ?<D5 459 B5:;59< 5 45 6<: - J5 =57 45"&" A-"7&"5?5" 7-9 45 >5"59<= >--B -7 45 A<8:5 <"B - J5 9&AD5B! <7 59 <==! -8 -7 45 ;9&I5 7-9 64&A4 :45 4<B & 9&>85B <"B A-":;&95B 79-? 459 >&9=4--B 7 45 6-9: A<?5 :45 A-8=B! < =5<: ! J

* < 85 - 45 %855" -7 A- :! K ">=57&5=B - 45 %855" -7 A- :!
5A! *M31 _ 2) ! / - 5A M$*M! *M31! <" & $O KM3M$
< = 44 ! .

&5=B&">!' 95C5">5' 459:5=7' -"' 45' 7<=:5' 79&5"B:' 64-' 6595' 8:&">' 459' :-' 8">9<A&-8:=

LLL"

*M3M <"8<9

59' 5<>59"5::' 7-9' 95=5<:5' 6<:' &"A95<:5B' 645"' :45' 7-8"B' 459:5=7' A-":&>"5B' -' <' "56' 95:&B5"A5' B&:<>955S <J=5' &"' & :5=7' <"B' 78==' -7' ;<&"78=' ?5?-9&5:!' 64595' 45' 95:;5A'B85' -' 459' 9<"D' 4<B' J55"' 7&9:' 7-9>- 5"' <"B' 459' 9--?:' 4<B' J55"' :5<9A45B' &"' 459' ;95:5"A5' J' <9?5B' ?5"' 45' 4<B' J55"' 95?-C5B' 79-?' 457=&5=B!' 645"' &9' <=;4' <B=59' 7&9:' --D' A4<9>5' -7' 459!' -' &">7&5=B!' <"- 459' 4-8:5' "-' 7<9' B&:<"!' J5=-">&">' -' 45' <9=' -7' 4956:J89' 45' <9=@:' ;5-;=5' 4<B' 95?<&"5B' &"' < 5"S B<"A5' 8;-"' 459' &">7&5=B' 6<:' 8"7-9 &7&5B!' <"B' ?<"' -7' 45:5' ;59:-":' 6595' < <A45B' -' 459' &" 595:' <"B' 6595' "-' --' -J5B&5"' -' 45' :9<">59' 64-' 6<:' ;=<A5B' < ' 45&9' 45<B' &9' <=;4' B5A=&"5B' -' J5!95:;-":&J=5' 7-9' 459!' 8"=5::' &"' <' :9-">59' ;-:& &-"' <"B' 6& 4' 4&:' -6"' ?5"' <J-8' 4&?' ' 6<:' B5A&B5B!' 45957-95!' 4<' :45' :4-8=B' J5' 95?-C5B' -"A5' ?-95' -' 8 J89' <:=5

' A4<">5' -7' D55;59:' 4<B' <=6<:' J55"' 459' ;5A8=&<9' 75<9' 45' D"56' 4<' :45' 6<:' :<75' 6& 4' 4956:J89 !' J8' :45' B95<B5B' 4<' :--"59' -9'=< 59' :45' 6-8=B' J5' ?<B5' -C59' -' 5&A5:59' "A5'&"' 5"&=6-9 4!' :45' 6<:' <::895B' 4<' :45' 6-8=B' "5C59' =5<C5' &' <=&C5'' <"B' 8 J89' 6<:' 45' 4<=76<' 4-8:5' -6<9B:' &' 79-?' 4577&5=B' 45' A<:=5' --' 6<:' &"' & :5=7' B95<9' <"B' ?&:59<J=5' 4577&5=B' 6<:' 45' 65==$<;;-&" 5B' 95:&B5"A5' -7' <"' ">=&:4' <9=' 8 J89' 6<:' <7-9' -"' 45' A95:' -7' <9-8"B' 4&==!' &"' 45' ?&B:' -7' <' 955=5::' ;=<&"' ' A-":&: 5B' -7' <' A&9A8&' -7' 6<==:!' <"B' &"' 45' A5" 95' <' 98B5= $J8&=' 48" &">$=-B>5!' -7' 64&A4' 45' 4&>45:' 6&"B-6:' 6595' -"=' -"' <' =5C5=' 6& 4' 45' ;<9<;5:' 45' 95A-??5"B<&-"' -7' &' 6<:' &:' : 95"> 4!' <"B' 45' %855"' -7' A-:' <AW8&5:A5B' &"' J5&">' <D5"' 4& 459' -"=' J5A<8:5' :45' J5=&5C5B' :&==' 4<' 459' :<' 6-8=B' J5' J9&57!' <"B' J5A<8:5' 459' A85' 6<:' -' J5

LLL "?

*M3M
<"8<9 $

48 ? J=5 <"B :8J ?&::&C5 45 <99&C5B &" 45 ?&BB=5 -7
<"8<9 59 9--?:4<B "- J55"&"4<J& 5B :&"A5 :45
6<: =<: 4595 45 ;=<: 59 6<: ;55=&">-&7 45 6<==:
45 6&"B :65; 49-8>4 45 95" :-7 45 6--B6-9D
45 :A<" 789"& 895 4<B J55" ;&5A5B ->5 459 79-?
-9B <>5 @: 4-8:5 < 5<8B5:59 ! J8 6<: 695 A45B=
&"<B5W8< 5 <"B 45 A-??-" A-"C5"&5"A5: -7 =&75 4<B
J55" :-&== ;9-C&B5B 4< A-?7-9 <"B 5C5" B5A5"A 6<:
&?;-::&J=5

<9<::5B &" ?&"B <"B :&AD &" J-B ! :899-8"B5B J
: 9<">59: <"B A8 -77 < =<: 79-?<== ;9&C< 5 A-??8"&S
A< &-"! 45 %855" -7 A- :75==! 7-9 45 7&9: &?5!&" -
5" &95 B5:;<&9 45 69- 5 <><&" <"B <><&" &" ;& 5-8:
5" 95< -89>4=5 45 7=8">459:5=7 &" 5" &95 :5=7$
<J<"B-"?5" < =&I<J5 4@: 755 ! A9 &"> 7-9 =&J59 -9
B5< 4'H 45 65<9 B< :;<::5B -" <"B J9-8>4 "-
A4<">5 <"B 45"! B&?= 49-8>4 459 ;9&:-"E6<==: 45
98 4 J9-D5 8;-" 459 4< :45 6<: J5 9< 5B J 459
?&:59<J=5 :-" 45 B956 <" A ! &" 64&A4 45 6<: -
<AD"-6=5B>5 4< 45 45=B 4&: A9-6" < 459 4<"B <"B &"
B5;5"B5"A5 8;-" 459 45 B5:&95B (<8C&::&a95 -
A<99 & -4&?<"B B5?<"B 4&: :&>"< 895 Q 7 45
@ 9578:5!@ :45 :<&B! @ &7 45 6&==" -<B?& 4< 45 &: &">
@ -7 A- =<"B -"= J ? 6&==! 95W8&95 -8! &" <==
@ -89 "5>-&<&-":! -6& 44-=B 45 &=5 79-?4&?
@ 459 9&"A5: :4<== B- 45 :<?5! 64595C59 ? A95B&
@ 5L 5"B:! <"B <? - 459@: A89:5 :4<== =&>4 8;-" 4&?
@ 6&== B5;9&C5 4&?-7 <== 45 >95< "5:: -64&A4!
@ 49-8>4 ?5! 45 A<" ;95 5"B &" 45 6-9=B 5 :4<==
@ 4<C5 "-4&">J8 64< 45 &"459& : 79-?4&: 7< 459
@ -;8"&:4?5"! 48?<" -9 B&C&"5! 6&== J5 <B5W8< 5 -
@ :8A4 5"-9?-8: &">9< & 8B5 @H

K 45 %855" -7 A- : - 89>4=5 ! O 45 %855" -7 A- : - (<8C&:S
<" .+$F+! 5J 2$*2! (<9A4 .$*. :&a95! (<9A4 8 $ 3 / C-=
$ 3 / - C-=C&

C&

7-==-6&">?-" 4 45 -8"A&= 4<B J55"4<9B<6-9D ;95;<9&"><?5<:895-:8J?& -45?"<"B C<9&-8: -C-?59 &&-H5:&"89>4=5R@:4<"B:456'4-6A<9578==4&::&8<S &-"6<:65&>45B 45%855"6<:-J5A-":&B595B-" -"5:&B5<"B 45"<&-"-"45-459 @-9?<"B85 @95:;5A:45A-":&8&-"-7<"45&9<;;<95"6<:B&:$ @=&D5B E-B5A&B5J5655"(<9<"B<?5:!-9-B5A&B5>5"59<==7-9-9<><&":45A-A4=&"5!6<:-JC&-8:=?;-=&&A45-JR5A6<:9<459-:<C5 45A-8"9 79-?B<">59-7<"<9A4 !<"B-@<D5;95A<8$ @&-":4<"-"5<5?;&">"<"6&AD5B<A:4-8=B @;9-7&J&E45;59&=:-45%855"6595!Q5&459 @79-?4-:5645-6-8=B4<C5A4<">5-7 95=&>&-"-9 @6-8=B<D5 45A9-6"79-?459E 45 7&9:A-8=B J5 ?5J<A=<8:5<<H5B-45A-9-"<&-"-<4!J&"BS &">45-C595&>"-?<&"<&"45:<J=&:4?5"" 45 :5A-"BJ<;9-C&:&-"<= -C59"?5"-AZ?5&"-5L&:S 5"A5-"45%855"E:B5<4!<"B-A-"&"85&==45A9&?5 4<B J55"";8"&:45B<"B 45A-"7=&A &">&=5:<BR8B&A<5B 8;-"45:8BB5"A5::<&-"-7<8 4-9&6-8=B48: J5<C-&B5B"45?<A4&"59-7<B?&"&:9<&-"6-8=B A-"S &"85 8"A4<">5B"<"B<:::--"<:5L5A8&-"4<B J55" B-"58;-"45<::<::&":<"B 45&9<AA-?;=&A5:! 45"<"B "-&==45"45A=<&?:-7 45C<9&-8:;95 5"B59:A-8=B J5=<&B J57-95 <9=&<?5"!45<==5><&-":-"<==:&B5: W8&5=45<9B!<"B Q;957595"A5!&"-9B59-7A-":&B59<$ @&-"!E ?&>4J5<==-65B-45;59:-"@64-:5"<?5 @45%855"4-8=B=5<C5&"69&&">:J459:5=7 @4-8>46-94-7 7<C-89E P"B59 4&:<99<">5?5" =&I<J5 4@:::5A&<=75<9 6-8=B J5<C-&B5B 45 6-8=B 95?<&"7-9459=&75 45:-=5-JR5A-7459;5-;=5@:<=5A$E &-"95<:-"6-8=B J5;95C5"5B J 45A59<&" 4<&6-8=B 7-975&&:956<9B"<"B @45:&"&:59-;&$ "&-"-7 7-95&>"""<&-":! 4<459(<R5: :-8>4-"=

@ 459' -6&W& :<75 !' 6& 4-8 ' 95><9B' -' 45' ;59&=' -7' 459'
@ 95<=?!' 6-8=B' J5' J ' 4<' <A ' A-"78 5B @

@ 45' B5:&95' -7' :-C5&E5&>" !@ & ' ?&>4 ' J5' :<&B!' @ 6<: *M31'
5A5?J59'&
:-' >95<' 4<' "-' B5C&A5' A-8=B' J9&B=5' <?J& &-8:' ?&"B: @
@ 45' ?< 59' 6-8=B' J5' 95B8A5B' -' 45' :6-9B' J57-95'
@ <9=&<?5" 'A-8=B'<::5?J=5'@ -9' 45' ;9-C&:&-"<=' -C59"S
?5" !' @4<C&">' 45' :6-9B' &"' 45&9' 4<"B:!@ ?&>4 ' 45?S
:5=C5:' "<?5' 45' :8AA5::-9!' <"B' Q645"' <9=&<?5" ' <:$
@ :5?J=5B!' 5C59 ' -"5' 6-8=B' J5' <79<&B' -' :;5<D' 4&:' ?&"B!'
@ 7-9' 75<9!' &7' 4&:' -;&"&-"' 6<:' -C59$98=5B!' 45' 6-8=B' J5' &"'
@ B&:>9<A5' 6& 4' 45' 9&"A5' 4<' :4-8=B' :8AA55B @

45' =<:' B&77&A8=' ?&>4 ' J5' ?5 ' J ' <"' <99<">5?5" '
4<' 45' B5A&:&-"' A-8=B' J5' <D5"' @"-' J '-;5"' B5A=<9<&-"'
@ J8 ' J ' :5A95 'J<==-&">!' <:'&"' #5"&A5 @ ' ?&>4 ' J5' :<&B'
<><&"!' 4<' 45' &" 59;-:&&-"' -7' <9=&<?5" ' 6<:' 8";95S
A5B5" 5B' 4<' 45' A9-6"' J5=-">5B' -' 45' 9&>4 ' 45&9!'
64-?' <9=&<?5" ' A-8=B' "-' <= 59 ' 8 ' 45' -JR5A ' 6<:'
-' B5 59?&"5!' W8&5 = ' <"B' &"B&77595" = !' 64-' 45' 9&>4 '
45&9' 6<:_ @ -4596&:5' 45' :6-9B' 6-8=B' J5' 45'R8B>5!' -'
@ 45' "<&-"@:' 8 59' -C59 49-6 @ 45' :& 8<&-"' & :5=7'
6<:' 6& 4-8 ' ;95A5B5" ' 4595' 6<:' "-' &": <"A5' &"'
">=&:4' 4&: -9 ' 64595' 45' :8AA5::&-"' 4<B' 95?<&"5B' :-'
B-8J 78=' <"B' 64595' ?5"@:' ?&"B:' 6595' :-' ?<" ' 6< :'
<J: 9<A 5B' <"B' ;95A5B5" ' -9' "-' ;95A5B5" !' &7' "-' 95:-S
=8 &-"' 6<:' <D5"!' @"-4&">' J8 ' 45' :6-9B' A-8=B' B5A&B5'
@ 45' A-" 9-C59: !' -' 45' C59 ' 98&"' -7' 45' 95<=?!' 5778:&-"'
@ -7' J=--B' 6& 4-8 '5"B!' <"B' :8JC59:&-"' -7' 985' 95=&>&-"' '@
4595' 6595' -JR5A &-":' -' 5C59 ' A-89:5' 64&A4' A-8=B' J5'
;9-;-:5B!' J8 ' <" 4&">' 6<:' J5 59' 4<"' -' =5<C5' :-' 75<9S
78=' <' ;-::&J&=& ' 8";9-C&B5B' 7-9H

' &:' B&77&A8=' -' :55' -"' 64<' '>9-8"B!' 5& 459' ;-=& &A<=' -9'
;59:-"<=!' 45' %855"' A-8=B' 4<C5' 95:&: 5B' <"' <99<">5?5"

K -5:'&"' -9B' 89>4=5 @:' 4<"B!' 45' %855"@:' B5< 4!' *M31$M_ =44'
7-9' 45' 5: <J=&:4&">' 45' 95<=?' <7 59' 5*. $!3

A<9578== A-":&B595B 45 5? ; < &-" -D&=459<9-:5
79-? 45 A-"78:&-" 64&A4 459 B5< 4 6-8=B A<8:5 45
*M31 5L<?;=5 -7 45 9&"A5 -7 9<">5 :4565B 64< 45 7<"<S
5A5?J59 &A: 6-8=B B<95 4-:5 B5C&=:!@ :<&B 89>4=5 ! 6595
;59:8<B5B 4< 459 =&75 6<: 45 -"= =5 64 45&9 $
9<" " 6<: "- ; =<" 5B <><&" R <"B 64&=5 4< 4-;5
95?<&"5B! 459 =&75 6<: &" >95< ;59&= " -=<6:! " -
<::-A&< &-"! " -75<9 -7 -9?5" ! A-8=B 95?5B &
B<?"<J=5 :5A -7 45 5:8& : ;59:8<B5B ?5" &" A-"$
:A&5"A5 4< :8A4<A : 6-8=B?59& 45<C5" @H -9 459S
:5=7! <: 65== <: 7-9 45 A-8" 9 ! 45 J5: :5A89& 6<: <
;9-C&:&-" 7-9 45 : <J&=& -7 45 -C59"?5" &" 45
5C5" -7 459 B5< 4 5 ! 7-9 :-?5 A<8:5! &'B&B "- ;=5<:5
459" <:8AA5::-9! 5C5" &" :- C<>85 <"B :4<B-6 <
7-9?! 6<: ?-95 4<" 459 &?<>&"< &-" A-8=B 5"B895
: 8:8<=! 459 A4&57 B5:&95 6<: - 48BB=5 -C59 45
:5::&-"! - &"B8A5 <9=&<?5" :&?;= - :<"A &-" 45
<::-A&< &-"! <"B - A-":5" - J5 ;9-9->85B &" 4955
655D: 45 -;5"&">! 45 -8:5: 6595 -=B J9&57= 4< 45 6595 A<==5B ->5 459 7-9 45 789 459&">- 7
95=&>&-"! 45 ;95:59C< &-" -7 459 (<R5: !<"B 45 65=7<95
-7 45 A-??-"65<= 4" <"B -" 45 &2 4 -7 5A5?J59 <
J&== 6<: &" 9-B8A5B J &9 9<"A&: "-== :! 5?J-B &">
45 %855"@: 6&:45: -?5-"5 64-6<:;95:5" 95;-9 5B
Q 4< & 6<: 45<9B <"B 95<B &" :<B :&=5"A5 <"B =& =5
:<&B @H 4595 6<: 5C&B5" = <755=&">- 7 ;9-7-8"B B&:S
<;;-&" ?5" Q 45 :&"&: 59 -;&"&-" -7 7-95&>" "< &-":@
6<: 985 45" 45 %855" B&B A<95 -"= 7-9 459:5=7!
<"B 6<:&"B&&7595" -45 45 ;9-:;5A &C5 A<=<?& &5: -7 459
;5-;=5 45 6<: :4-9 :&>4 5B 5C5" 7-9 459 ;59:-"<=
:<75 5<C&= <"B 95=8A <" = 45 -??-":5 45?S
:5=C5: -A-":&B59 45 <::-A&< &-" J-"B 45 7&9: -J$

K -9B 89>4=5 @: - 5: _ = 44 45 < 4 -7 ::-A&< &-"! &7 & J5" -
5*. $!3 W8<=&7&5B 6& 4 < A-"C5"&5" A -7
K <">59: 64&A4 ?< 5=&:85 79-? <9=&<?5" ! *M31$M _ = 44 :!)

R5A &-"' 6<:' -' 5' 6-9B:' Q-7' 64-?' -9' 7-9' 64-?'@ 45' LLL"
8"<8 4-9&:5B' <A' -7' <' :5A-"B' ;59:-"' A-8=B' "-' <D5' *M31
<6<' <' =<678=' 9&>4' ' 6<:' 95?-C5B' <' -"A5' J' <' 5A5?J59
?5::<>5' 4@-?' 45' %855"!' 4<' @:45' B&B' "-' 6&:4' <"'
Q-"5' -' J5' ;8"&:45B' 7-9' 45' 7<8=' -7' <"-459'@ Q:45'
@ 6-8=B' 4<C5' "-4&">' ;<::' @ 64&A4' >9&5C5B' 459' :8JR5A :@
@ A-":A&5"A5:' -9' 6-8=B' "-' <J&B5' 45' C&56' -7' 45' 6-9=B'@
@:45' <775A 5B' -' <;;9-C5' 45' I5<=' -7' :8A4' -7' 459' 7<& 478='
@:8JR5A :' <:' B5:&95B' 6& 4' 8;9&>4' A-":A&5"A5:' -' :59C5'
@ -B' <"B' 459' ->5 459 @H

45' -8:5' 6<:' ;<9 &<== ' :<&:7&5B!' J8' 45' 4<B' =--D5B'
7-9' :-?5 4&">' B&77595" ' 45' <::-A&<&-"' 5& 459' ?5<"'
"-4&">' -9' &' ?5<"' <' :8:;5":&-"' -7' =5><=' <8 4-9& R@H<"B'
45' ?-95' 45' =<">8<>5' -7' &' 6<:' 65&>45B' 45' 6&B59' 45'
B&77595"A5:' -7' -;&"&-"' 64&A4' <9-:5 @ -?5' ?5"&J59:' 64-'
4<B' :6-9"' 75=' 45?:5=C5:' @:8;59: & &-8:=' J-8"B'@ -'
45' 5L<A' 6-9B:' -7' 45' -<4' :-?5' 4-8>4' 4<' @& '
@ A-" <&"5B' ?< 59' "-' 6<99<" <J=5' J' 45' -9B' -7' -B!'
@ <"B' 95;8>"<"' -' 45' =<6:' -7' "< 895' :-?5' 4<!' <:'
45' -<4' 6<:' ?<B5' 7-9' 45' %855"@:' :<75 !' 45' %855"'
A-8=B' B&:;5":5' 6& 4' &' :-?5' 4<' &' 6<:' 8"=<678=' <"B'
45957-95' C-&B' 459:' <><&"' <9>85B' 4<' @& ' 6<:' <' ><;'
@ -;5"5B' -' ?<D5' ?5"' A<95=5::' -7' -<4:!' 95<B' -' :65<9'
@ <" 4&">' <=J5&' 45' ?5<"' -' ;597-9?' "-4&">' @
64&=5' ?<" @<77&9?5B' 4<' 45' 4-8>4' 45?:5=C5:'
@ J-8"B' -' ;597-9?' 45&9' -<4' ;=<&"=' <"B' 98=' <:'
@ 45' 4<B' ?<B5' & '@ Q 4<' 6& 4-8' 5LA8:5!' A-=-89!' -9'
@ ;95 5L' 64<:-5C59!' 45' 6595' J-8"B' -' ;9-:5A8 5' :8A4'
@ ;59R895B' ;59:-":' <:' 6-8=B' :5;<9< 5' 45?:5=C5:!' <"B'
@ 4<' "-' ?-9 <=' <8 4-9& 'A-8=B' B&:;5":5' 6& 4' 45? @
@ !' 7-9' ? '-6"' ;<9 !@ 69& 5:' 45' 8"D"-C"' ;59:-"'79-?'
64-:5' "<99<&C5' 45' B5:A9&;&-"' -7' 45' :A5"5' &:' J-9S
9-65B!' @ 6& 4' >95<' >9&57' -7' ?&"B' 45<9&">' 45:5' A-"$
@ 9<9' A-"A5&:' -7' 4&:' -<4' 79-?' 4-:5' ;95:5"' 64&A4'

LLL"

*M31
5A5 ? J59

Q !4<B' <D5"' 45' :<?5!' B&B!' ?5 4-8>4 !' J54-=B' 45'
Q J=--B ' 5775A :' 64&A4' ?8: ' 5":85' 645"' :-' ?<" ' 4-8$
Q :<"B:!' 9&:&">' &"' <9?:' 6& 4' 65<;-":' &"' 45&9' 4<"B:!
Q :4-8=B'&"' ?&"B'J5' 48:'B&: 9<A 5B'<"B'J ' -< 4:'&?;5==5B'
Q -' 5?J985' 45&9':6-9B:'&"' 45'J=--B'-7' 45&9'J9- 459:
Q (54-8>4 _755&">' <==' 45:5' <::-A&< -9:' ?8: ' 7-9'
Q 45&9'-6" ':<75 !' 8;-"'<" ' :8A4' <AA&B5" !' ;8 ' 45?$'
Q :5=C5:' <"B' 45&9' 79&5"B:' &"' <9?:!' =5: ' - 4596&:5' 45 '
Q J5' ;59:5A8 5B'J ' 45&9' 75==-6:' <:' ;59R895B';59:-":_H
Q 4< ' -AA<:&-"' 6<:' -77595B'7-9'<" ' ?5<"&">' J ' 7<A &-"'
Q -' <BC<"A5' <"' 8"B59$ & =5' -' &" 98B5' 45?:5=C5:!' <"B'
Q J ' =&"D&">' 45?:5=C5:'6" 4' 45' ?-95' C&-=5" ' <775A &-":!'
Q -' A<=8?"&< 5' 64-?' 45 ' =&: ' <"B' 5L -=' 45?' 64-?'
Q 45 ' 6-8=B!' -9' :;-&=' -9' ;95 ' -"' <" ' 4< ' B&B' 6&:4'07-9'
Q B5A&B&">' -7' A=<&?:' ?' ?-95' W8&5 ' A-89:5
Q 9&57= !' ' 4-8>4 ' ' B&B' J54-=B' <' A-"78:5B' A-?;<" '
Q -7' <==';<9 :' -7' 45' 95<=?!' -7' <==' B5>955:' <"B' 5: < 5:'
Q 4595!' 9&:&">' &"' <9?:!' < ' :8A4' < &?5' <:' 4595' 6<:' "-'
Q -8"A&=' -7' 5: < 5' &"' =&75!' "-' =<678=' >5"59<=:!' "-' =&58$'
Q 5"<" :!' "-' A-=-"5=:' -9' A<; <&":' -' >8&B5' 45?' &"'
Q <A &-"' "-';95:&B5" :!' "-':459&77:!' "-'R8B>5:!' "-R8: &A5:!'
Q "-' -77&A59:!' 6& 4' <8 4-9& ' -' ?<&" <&"' R8: &A5' -9' ;95$'
Q :59C5' ;5<A5!' -9' 6& 4' =<678=' ;-659' B&95A ' :8A4' < B&:$'
Q 9<A 5B' A4<-:' -7' <9?5B' ?5"!' A-"78:5B= ' 9&:&">' 5C5"' < '
Q 45' &?5' 645"' ?-:' "55B' :4-8=B' J5' -7' >95< 5: ' >-C59"$'
Q ?5" !' B&95A &-"' <"B' R8: &A5!' -' :8;;95::' 7<A &-":!' B5$'
Q A&B5' A=<&?:!' <"B' B575"B' 45' 95<=?' 79-?' &"C<:&-"' -7'
Q : 9<">59:' 645"' :6<9?:' -7' "55B ' :-=B&59:!' <J-8"B&">'
Q &"' 45' 95<=?:' <J-8 ' 8:!' 6&==' A-?5' 7= &">' -C59' -' ;-:$'
Q :5::' <"B' ;95 ' 8;-"' -89' 75=&A& -8:' 65<= 4' <"B' 9&A45:!'
Q 645"5C59' :8A4' <"' -;;-9 8"& ' J ' -89' A&C&=' B5J< 5:'g f
Q 5<' J5==<';=8:W8<?' A&C&=&<!' :4<==' J5' -77595B @H

<">59:' k 64&A4 ?<'5":85' 79-?' <9=&<?5" !' *M31$M' _' =44' 5*I
45' < 4' -7' ::-A&<&-"!'&7'&' J5' "-' . $!3
W8<=&7&5B' k 6&4 <' A-"C5"&5" ' A ' -7

"' 45' 7<A5' -7' :8A4' B95<B' ;-::&J&=& &5:!' "-' :5::&-"' -7' 65" 'B< :!' "-' ?595';9-;-:<=' -'=5><4:5' 45'<::-A&< &-"!' 6-8=B' ?55' 45' R8:' B5?<"B:' -7' ">=<"B' 45' C59' 5L&: 5"A5' -7' 45' 5?;&95' 6<:' 45=B' -' J5' <' : <D5' Q-"5' Q 79&>4 78=' 4-8>4';-::5::5B' 5C59'=- <=' ?&"B!' 4<' 4-:5' Q 45==$4-8"B:!' 45' 5:8& :!' D"-6&">' 45?:5=C5:' -' J5' kQ 8"& 5B!' <"B' >--B' :8JR5A:' B&: 9<A 5B' <"B' B-8J 78=!@ 6-8=B': 9&D5'<' 45' %855"'<"B';=8">5' 45' A-8" 9'&" -' <"<9A4 ' Q 45' 45=B'<"B' <8>4' 4<'&' 6<:'"-'=<678=' Q -"='J8' ?59& -9&-8:' -' DP=' 5LA-??8"&A< 5B' 9&"A5:@ 5<9' A-8=B'"-'B<8"' 45?' Q 45' &??5B&< 5';9-:;5A' Q -7' 45';<9<B&:5' 64&A4' 45' 6595' -' 6&"'@ 5"<J=5B' 45?' -'A-" 5?"'B5< 4'<"B' 9&8?;4'&"' -9?5" :' -';95A<8S &-"' 6-8=B'<C<&=' Q 8"=5::' Q 45' :<5' -7' 45' 95<=?' 6<:' :-' Q 5: <J=&:45B' 4<' :8AA5::' :4-8=B' "-' ;9-7&' 45?' J8' 'Q 9< 459' J5' 45' 98&"' -7' 45&9' 4-;5:@H

45' J&=' 6<:' 6& 4B9<6"' ' A-??& 55' -7' J-4' -8:5:' 6<:' "-?&"< 5B' -' 79<?5'<' :5A-"B' &"'& :' ;=<A5!' <"B' 45' -"8"-":';9-A55B5B' 6& 4' <"-459' ?5<:895' -7' 95;95::&-"!' A<99 &">' <' :5;' 789 459' <"' A' -7' 45' =<:' <9=&<?5" ' ==' 5:8&:' <"B' 5?&"<9' ;9&5::' 6595' -9B595B' -'=5<C5' 45' 95<=?' 6& 4&"'7-9' B<:' 7' 45' -C59: <&B' 4<' &?5!' -9' &7' 45' 95 89"5B' <7 59' &!' 8"=5::' 7-9' ::5A&<=' A<8:5:!' 45' 6595' -':8775 9' <:' 9<& -9:' <"B' 4-:5' 64-' 4<9J-895B' 45?' 6595' -' J5' 4<">5B' <:' 75=-":

45' 599-9' -7' 45' 64-=5' :& 8< &-"'7-A8::5B' &"' 45' 6-9B' Q 5:8& @ 9-?' 45' 45' -A&5' -7' >"< &8:' - -=<'A<?5' 45' &";&9< &-"' -7' 45'<::<::&":!' <"B' 4&:' ?5<:895'<' =5<:' ;9-?&:5B' -';<::' 6& 4' <AA=<?< &-"' -' 45' :89;9&:5' -7' 5C59' -"5!' <'::-=& <9' ?5?J59' 9-:5' &"' 4&:' :5<' <"B' B5S A=<95B' 45' J&=' -'J5&78=' -7' J=--B!' A-"7&:A< &-"!' <"B' B5:;<&9' -'<=' ">=&:4' :8JR5A:' 45' :;5<D59' 6<:' -A-9' <99 !' 64-' 6<:' 45"' 78=7&=&">' 4&:' 95:-=8 &-"' -7' 9 &">' 45' 5775A

$$$$$ $$$$ $$$$$$

*+

*M3h
5A5?J59

-7<95?-": 9<"A5&" <9=&<?5" J57-95A<99 &">-8 45
;89;-:5 6& 4 64&A4 45 4<B A-?5 -C59 79-? <9&: 5
4<B J55" 95: -95B -4&: ;=<A5 < 45 A-89 ! <"B 4<B
J55" <><&": 6-9" -45 %855" -"95<B?&::&-" 5 4<B
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45 A& &:95W85: 4<B J55" 9578:5B! <"B! J9--B&">
-C59 4&: &?<>&"5B 69-">:! 45 4<B :-8>4 A-?;<"&-"S
:4&;6& 4 <"- 459 ?<=A-" 5" ! <" B9<& "B 5C&==5! D&":S
?<" -45 5L&=5B <9= -7 5: ?-95=<"B! 64-6<:87S
759&">79-? 45 :4<B-6 64&A4 A=-8B5B 4&:7<?&= 45:5
6-6-9 4&5: 4<B :;5" 45 :8??59 4< A4&"> 95<:-" -S
>5 459 <99 4<B 95C5<=5B -5C&==5 4&: B&:;5":< &-"
79-? 45 -;5! <"B 45 4<B ?8 8<== 6<9?5B 45&9
A-89<>5-C59 45 5L<?;=5 -7 <= 4<I<9 59<9B <9=&<S
?5" ! 4-65C59! 6<: -J5 9&5B 7&9: ! <"B <99 4<B
-J <&"5B <:5< 7-9 %855":J-9-8>4! 6& 4 64&A4 45 6<:
&" :-?5 6< A-""5A 5B

45 -8:5! <=95<B 75C59&:4 <"B 795 78=! 89"5B 8;-"
4&? &" <;<::&-" -7 &"B&>"< &-" 5 6<: A-??& 5B
&": <" = -45 :59>5<" < <9?:! ;=<A5B -" 4&: D"55: <
45 J<9! <"B 95W8&95B -5L;=<&" 4&:6-9B: 5 :<&B 45
4<B "- ?5<" -775"B 45 4<B :;-D5" -"= 4&:95<=
4-8>4 :' 4&: 95<:-":' 45 95:59C5B 7-9 45 %855" 5
6<: A<99&5B -77 &" A4<9>5 <"B 5L<?&"5B J 45 -8"S
A&= 45 "5L B< <?5::<>5 A<?5 49-8>4 < -"
79-? =&I<J5 4 4< :45 6<:>9< 578= 7-9 45 755=&">
64&A4! 45 -8:5 4<B B&:;=< 5B! J8 4< :45 4-;5B! -"
<99 @: <AD"-6=5B>?5" -7 4&: 7<8=! 4< & 6-8=B J5
;<::5B -C59 5B -45 J<9 <:5A-"B &?5! 45 6& 4S
B956 4&: 6-9B:! ;9-?&:5B "5C59 -775"B <><&"! <"B
6<: <==-65B -95:8?5 4&: :5< 1

45 J&== 6<: ;<::5B! J8 &?5 6<: 95W8&95B 7-9 45

A-": &B59< &-"' -7' 45' =<9>59' W85: &-"' 45' 49&: ?<:' 4-= B< :' 6595' <' 4<"B!' <"B' ><C5' <"' -;;-9 8"& ' 7-9' &99& < &-"' -' A--= B-6"' "' 45' .*: !' "- &A5' 6<:' >&C5"' -7' <' :&L' 655D:@ <BR-89"?5"' 45' %855"@:' ;=5<:895' 6<:' <><&"' ?<B5' D"2HC"' J' < -"!' <"B' <' :A5"5' --D' ;=<A5' 64&A4' 95C5<=:' : 9&D&">=' 45' :5" &?5"' -7' 45' =- <=' ;<9' -7' 45' "< &-"' ' 45' A=-:5' -7' <' =-">' :;55A4!' -"' 45' >--B"5::' A4&57=' -7' =?&>4' -B!' < -"';9-;-:5B' 4<' 45' -???-":!' J57-95' 45' :5;<&$< 5B!' :4-8=B' R-&"' $6&4' 4&?' &"' <' ;9< 59' 7-9' 45' %855"@:' A-" &"85B' ;95:59C<S &-"' ?&B:' <' 48?' -7' >5"59<=' <::5"!' 45' ;9-B8A5B' <' 7-&K?' 69& 5"!' <:' 45' :<&B!' "-' C59' 65==!' J8' J' <" 4-"5:!' >-B=!' <"B' =5<9"5B' ?<"' 5' 95<B'&' :5" 5"A5' J' :5" 5"A5!' <"B' 45'7-89'48"B95B' ?5?J59:!' <==' -"' 45&9' D"55:' -"' 45' 7=--9!' -7' 45' -8:5j'95;5< 5B' 45' 6-9B:' <7 59' 4&? H

"' 45'1 4'-7' 5J98<9' 45' ?5' <><&"!' <"B' J' 4<' &?5' 45' ;59&=' 7-9' 64&A4' 45' 4<B' J55"' A<==5B' -' ;9-C&B5' 4<B' <A 8<==' <;;5<95B' <' 45&9' B--9:' B?8"B' 5C&==5!' 4<C&">' <"' 5 5!' ;594<;:!' -"' 45' 5:?-95=<"B' 5<9=B-?!' <"B' 4-;&">' -' ><&"' 7<C-89' J' J5 9< &">' 4&:' <AA-?;=&A5!' A<?5'7-96<9B'&"' <"8<9' <"B' <AA8:5B' <99' -7'&" 5"BS &">' 95>&A&B5' <99 !' 45' :<&B!' 4<B' :;-D5"' -' 4&?' &"' 45' ;<:' :8??59'-7'D&==&">' 45' %855"!' <:' <"' <A' ?59& -9&-8:' 6& 4' -B' <"B' 45' 6-9=B!' <"B' 4<B' :<&B' 4<' 45' 6<:' 95<B' -' =-:5' 4&:' =&75' -' B5=&C59' 4&:' A-8" 9' 79-?' 9<"" ' 5C&==5' "< 89<==' 95;95:5" 5B' 4&?:5=7' <:' 4<C&">' =&: 5"5B' 6& 4' <J4-995"A5!' J8' <99 !' 45' B5A=<95B!' 4<B' A-" &"85B' -' 89>5' 4&?!' @ 6-"B59&">' 45' 6<:' :-' :A98;8=-8:!' 6& 4' :-' @ ?<"' 69-">:' -7' 4&:' -6"' -' 95C5">5@ 5C&==5' 4<B' <9>85B' 4<'&' A-8=B' "-' J5' B-"5' <99' 4<B' 95;=&5B' 4<' "- 4&">' A-8=B' J5' ?-95' 5<: ' 45' %855"' 6<:'&"' 45' 4<J&' -7' 6<=D?>' <=-"5'&"' 45' <=<A5'><9B5":' <' 5: ?&": 59!

5=-">&"> 4&?:5=7 - 45 4-8:54-=B! 45 4<B <AA5::
- 459 ;95:5"A5 5C59 64595 45 A-8=B &" 9-B8A5 4&:
*M3M <"8<9 A-?;<"&-"! <"B < J<9>5 ?&>4 45 95<B < 45 6< 59
:&B5 - A<99 45?B-6" 45 9&C59 <: :--" <: 45 B55B
6<: B-"5 7 4&: 7<&=5B 45 A-8=B 9&B5 8; -" 5<A4$
:&B5 -7459 A<99&<>5 <: :456<:>-&"> - <?5:@:$<"B
7X95 45&9 ;&: -=: &" 459 7<A5 4595 6-8=B J5 "- ;89S
:8& ! (7-9 45 6-9=B 6<: 65<9 -7459 @

4H5C&==5 ;9-75::5B - 4<C5 89"5B < B5<7 5<9 <"B 4<B
=57 -"B-" 45" 45 95 89"5B 457-8"B <99 :?<9 S
&"> <7 59 4&: <BC5" 895 &" <94<?5" 45 ?5?J59
7-9 %855":J-9-8>4! & <;;5<95B! 4<B 95=&5C5B 4&: A-"S
:A&5"A5 45 4<B 9&5B 45 - 459 ?5<": <"B 4<B 7<&=5B!
<"B 6<:"-6 95<== B5 59?&"5B - 5L5A8 5 4&: A-? ?&:S
:&-"79-? (-9><" 5<><&"<:D5B 4&:79&5"B - 45=; 4&?
45 ">=&:4 6595<== A-6<9B:! 45 :<&B! <"B (5C&==5 6<:
(45 -"= ?<" 6& 4 64-? 45 A-8=B <A &":8A4 <?< 59 @
5s&==5 :<&B 4< 45 (?<B5:5?J=<"A5 - J5 ?-95 6&==&">
(4<" J57-95! 4-;&"> - =5<9" ?-95 -7 <99 @:&" 5" &-" @
645" 45 4<B >< 4595B <== 4< 6<: "5A5::<9 ! (45 B&:$
(A4<9>5B 4&: A-":A&5"A5!@ <"B 95C5<=5B - 45 -8"A&=
(45 9<& -9-8: <"B <J-?&"<J=5 &" 5" &-" @H

": <" <995: -7 A-89:5 7-==-65B <99 6<: 5LS
<?&"5B &" 45 -659 J 8":B-"! < -"! <"B <=:&">$
4<? 5 6<: 495< 5"5B 6& 4 45 9<AD! <"B ?<B5 <
78== A-"75::&-" 5 -=B 4-6 45 4<B J55" 95A5&C5B &" -
45 489A4! 4-6 45 4<B J55" 5?; 5B J (-9><" &"
<9&:! 4-6 45 4<B 95<B J--D:! A-":8=5B ;9&5: :! <"B
J55" 8"A59 <&" &" A-":A&5"A5 5 <B?& 5B 45 -;5@:
B&:;5":<&-"! <"B 45 <9B&"<= -7 -?-@: =5 59 5
:<&B 4< 45 4<B =-: &! J8 & 6<: 7-8"B <?-"> 4&:
;<;59: 5 <AD"-6=5B>5B 4< 45 4<B A-?5 - ">S
=<"B ?5<"&"> - D&== 45 %855" 4< 12# 4<B J55"

* -"75::&-" -7 B?8"B 5C&==5! 5J **$.*! *M3M _ = 44 5*. $!3

A-8" 59<BC&:5B!' 4<B' 6<C595B!' 4<B' ?<B5' 8;' 4&:' ?&"B' LLL"
<><&" ' "' -"5' J95< 4' 45' :<&B' 4<' 45' 4<B'&" 5"B5B' -'
B-'&!'&"' 45' "5L ' 4<' 45' 4<B' "5C59'&" 5"B5B' -'B-'&!' */0 " ."
J- 4' : -9&5:' J5&">' ;9-J<J=' 985!' <"B' 95;95:5" &">' 4&:'
EC<9 &">' ?--B:' 5' 6<:' "-' 7<"< &A_ "-' ?-"-?<"&<A'
6& 4' <' 7&L5B' &B5<!' 64&A4' &:' A-"C59 5B' &" -' <' 7< 5' J '
J5&">' J9--B5B' -C59' 5' 6<:'<' C<&"' 7--' 64-' 4<B' 75B'
4&:' &?<>&"< &-"' 6& 4' 45' A-"A5&' -7' J5&">' <' 89-;5<"'
459-!' <"B' 4<B' "5C59' 69-8>4' 4&?:5=7'&" -' 45' :&=5"'
?--B' -7' B5 59?&"< &-"' 64&A4' &::85:' &"' <A' 8' &7' 45'
6<:'<'7--' 45' 6<:'<'B<">59-8:' -"5!' <"B'&"' 45' 48?-89' -7'
45' A-8" 9' <"B' -7' <9=&<?5" ' 45' 4<B' :?<=' A4<"A5' -7'
7&"B&">' 45' ?59A '7-9' 64&A4' 45' ;9< 5B' 5' <;;5<95B'<:'
45'&"A<&E8<&-"' -7' 45E8"&C59:<=' 599-9' &:' A-"75::&-"'
6<:' <D5"' B-6"' <"B' ;8J=&:45B' 6& 4' 45' <9B&"<=' -7' -S
?-@:' =5 59' 5' 6<:' :48' 8;'&"' 45' -659' <9=&<?5" '
B5A=<95B'4&:':5<'C<A<" ' <"B' &9' 4-?<:' 8A_ 4<D5S
:;5<95@:' 8A !' 45' -9&>&"<=!';594<;:!'-7' 8:&A5' 4<==-6!'
6& 4' <"' ">=&:4' 7&59A5"5::' <' 45' J- -?'-7' 4&:' : 8;&B'
"< 895_ 4<C&">' : 8B&5B' 45' B5 <&=:' -7' 45' 5L5A8 &-"' -7'
59<9B!';9-;-:5B'&"' 45' -8:5'-7' -??-":' @ 4<' :-?5'
@ "56' =<6' :4-8=B' J5' B5C&:5B' 7-9' <99 @:' 5L5A8 &-"!' :8A4'
@ <:' ?&>4' J5' 4-8>4' 7& 5:' 7-9' 4&:' 5L 9<-9B&"<9' <"B'
@ 4-99&J=5' 95<:-"@H

45' :8>>5:&-"' 4<9?-"&:5B' 6& 4' 45' >5"59<=' 755=&">'
<"B' 6<:' 65==' 95A5&C5B'' J8' 45' -9B&"<9' ;8"&:4?5"'
7-9' 95<:-"!' &7' A<99&5B' -8' -' 45' =5 59!' 6<:' A985=
5"-8>4' -':<&:7' 45' ?-:' 48">9' <;;5&5'7-9'4-99-9:'
8:&A5' 6<:' :6&7' <99' 6<:' 9&5B' J57-95' <' :;5A&<=
A-??&::&-"' -"' 45' .M 4' -7' 5J98<9' 5' ;=5<B5B'
>8&=' 4&:' A-"75::&-"' 6<:'95<B' -'4&?'<"B' 45' 95<77&9?5B'
&' -' J5' 985' ><&"' 45' A-" 9<B&A 5B' 4&?:5=7!' <"B' :<&B'
4<' 45' 6<:' &""-A5" '' <"B' 645"' 95W8&95B' -' 5L;=<&"!

K @ 65:@ -89"<=:'0

-"= < ": 6595B 6& 4 A-"78:5B <"B Q B<9D : ;55A45: @

45 4&57 8: &A5! &9 49&: - ;459 9< ! ;<::5B :5"S

*M3M =<9A4 5"A5 : 45 =&: 5"5B - 45 79&>4 78= 6-9B:! 45 HA9&5B

-8 &"B5:;<&9! @ :8??-" $%855" =&I<J5 4 "<": 659

@ 7-9 ? J=--B J57-95 -B @ 45 &58 5"< -7 45

-659 95?-C5B 4&? 79-?' 45 J<9 <?&B: 45 4-6=&">-7

45 A9-6B &C5 B< : <7 59 45 6<: B9<6 " -" <489B=5

79-? -659 &== - <=<A5 <9B! 64595! A=<?-89&"> 4<

45 6<: J5&"> 5L5A8 5B 7-9 <A9&?5 64&A4 45 4<B "5C59

?5<" -A-??&! 45 6<: 4<">5B <"B W8<9 595B H

4&: &?5 45 A-??& 55 4<B ;9-B8A5B 45 "56

J&== 7-9 45 %855"@: :<75 75== :4-9 -7 64<

89>4=5 4<B B5:&95B! 7-9 =&I<J5 4 : &== A=&-:5 -D55;

45 A-?;5&-9: 7-9 45 :8AA5::&-" B5;5"B5" 8;-"

459-6" ;=5<:895! <"B "- ;9&"A&;=5: 659`=<&B B-6" J

64&A4 -A4--:5 J5 655" 45? -?5 4&"> 6<: B-"5!

4-65C59! 4-8>4 "- <==

6<: ;9-C&B5B 4< &7 45 95<=?' 6<: &"C<B5B -9 <

95J5==&-"&": &>< 5B <7 59 45 A=-:5-7 45 ;95:5" :5::&-"!

J -9 7-9 <" -"5 ;95 5"B&"> < & =5 - 45 A9-6" <7 59

45 %855"@: B5< 4 -9 &7 <" 4&"> 6<: &?<>&"5B - 45

489 -7 459 (<R5: @: ;59:-"! J <" -"5 -9 6& 4 45

;9&C& -7 <" -"5 4< ;95 5"B5B & =5! :8A4 ;95 5"B59!

<7 59 B85 5"W8&9 <"B A-"C&A &-"! :4-8=B J5 7-9 5C59

B&:W8<=&7&5B

45 <::-A&< &-" J-"B 6<: ?-B&7&5B J <A=<8:5 4<

5C59 ">=&:4 :8JR5A ?&>4 ! *(' = ' $21)! 3I

$!*(!(' $ '$: '86 ;89:85 <" ;59:-" -B5< 4 J 64-?

-9 J 64-:5 <::5" :8A4<A :4-8=B 4<C5 J55" < 5?; 5B

<"B :4-8=B 45 < 5?; J5 :8AA5::78=! 45 -9B:-7 45

-8"A&=! 6& 4 7&C5 - 459 <9=: <"B :5C5" 559:! "-

J5&"> 45?:5=C5: ;59:-": ?<D&"> & =5 - 45 A9-6"!

6595 <;;-&" 5B < A-??&::&-" 6& 4 45 8B>5: <"B 45

J=<: 59' -7' 45' -==:!' -' 5L<?&"5' 45' A<8:5' -7' 45' %855"@:' B5< 4' <"B' 5L5A8 5' 45' -775"B59:' <"B' 45&9' <J5 -9: H

LLL"

*M3M
."012

#<>85' <"B' B575A &C5' <:' 45' A' 6<:_H7-9 45' B<">59:' -' J5' <" &A&;< 5B!' :4-8=B' 45' %855"' J5' <::<::&"< 5B!' 6595' :A<9A5=' =5::5"5B!' &7' 45' &"B8A5?5" :' -' <::<::&"< 5' 459' 6595' B&?&"&:45B_&' 6<:' "-6'<==-65B' -' ;<::' J8' &"<:S ?8A4' <:' <99' 4<B' A-"75::5B' 4<' 45' -JR5A' -7' 4&?:5=7' <"B' (-9><"' 4<B' J55"' -' ;=<A5' 45' %855"' -7' A-:' 8;-"' 45' 49-"5!' <"B' <:' (-9><"' 6<:' D"-6"' -' J5' 459' A-"7&S B5" &<=' <>5" ' &"' <9&:!' @' <' ?-&-"' 6<:' ?<B5!' 6& 4' @' >5"59<=' <;;=<8:5' -7' 45' 64-=5' -8:5!' -' 95C&C5' 45' @' ;9-A55B&">:' <><&":' 459' &"' 45' <9=&<?5" ' -7' *M,. UK =&I<J5 4' 6<:' "-' 5"A-89<>&">!' <"B' &' 6<:' B9-;;5B' ' =&J59<=' :8 R:&B !' <"B' <' ;5 & &-"' 79-?' 45' -?? -":' <><&":' 45' :=-C5"=&"5::!' 45' A-998;&-"' <"B' >9-6&">' 9<"" ' -7' 45' J&:4-;:!' A=-:5B' 45' =<J-89:' -7' 45' :5:S :&-"!' <"B' 45' %855"!' 65==' :<&:7&5B!' <:' :45' 4<B' 95<:-"' -' J5!' 6& 4' 45' 7-9J5<9<"A5' 64&A4' 4<B' J55"' B&:;=< 5B' -6<9B:' 459!' A-"B5:A5"B5B' -' >&C5' J-4' -8:5:' 459' 6<9?' <"B' 45<9 75=' 4<"D:' 45' A-?;=&?5" 5B' 45?' &"' 45' :;55A4' 79-?' 45' 49-"5' -"' 4<C&">' "5>=5A 5B' 45&9' ;9&C< 5' 78 895' ;59&=' <"B' 95><9B5B' -"=' 459' ;95:5"' :<5' 45' :4565B' 45?' 4<' :45' 8"B59S : --B' <"B' #<=85B' 45&9' 8":5=7&:4' A-":&B59< &-"' 7-9' 459' 59' =<">8<>5' &"' <==' 6<:' 6<:' 8"8:8<=' >5"8&"5' <"B' B&>"&7&5B' 45' 4956' <:4&5=B' -C59' 45' J&:4-;:!' J8' :45' -=B' 45?' 4<' @&7' 45' B&B' "-' <?5"B' 45&9' 7<8=:' @' :45' @' 6-8=B' B5;-:5' 45?' @' 45' B575"B5B' 459' >5"59<=' 95=&>&-8:' ;-=&A !' 95;5==5B' 45' <AA8:<&-"' -7' =8D56<9?"5::!' <"B' <;$

Ø .,' =&I<J5 4!' A<;' &
K' ;5 & &-"!& 6&=' J5' 95?5?J595B!'
6<:' ;95:5" 5B' 7-9' 459' 5L5A8 &-"' <:'
<"' <AA-?;=&A5' &"' 45' 95<:-"' -7' 45

8D5' -7' -97-=D < 8!9' $' $*' $ '
+ (' *6' 43*$' (<9A4' ..!' *M3M'
6<:' ;95:5" 5B' 7-9' 459' 5L5A8 &-"' <:'
= 44' ' 6, /' ' + '

M3i
(<9A4

;5<=5B -459 ;95:5" ; -:& &-" <: < ;9--7 -7 459 :&"A59& FH -9 95=&>&-"! <"B 7-9 95=&>&-" -"= ! :45 :<&B 459 =&75 6<: &" 4-89= R 59&= 45 7-95:<6! 645" :45 -9&>&"<== A4-:5 459 A-89:5! 4< :45 6-8=B 4<C5 45 ?&>4 &5: <"B >95< 5: -/ 5: =5 6& 4 :45 D"56 45 B<">59! <"B 4<B B5=&J59< 5= 5"A-8" 595B& ! <"B "-6 :45 6<: --? 8A4 69-">5B &7 :45 6<: A4<9>5B 6& 4 A-=B"5:: 45 6<: ;59:8<B5B 4< 459 6< 6<: -B: 6< ! <"B 7-9 4< 95<:-"! <"B 4< 95<:-" -"= ! :45 ;59:&: 5B &" & 45 :8J:&B ! :45 :<&B! 6-8=B J5 5? ;=- 5B -" 45 B575"A5 -7 45 A-8" 9 8J=&A "5A5::& -"= 4<B -J=&>5B 459 -< ; ;= 7-9 &! <"B &7 4< "5A5::& B&B " - 5L&: :45 6-8=B 9< 459 95 89" 4<" 95A5&C5 & H

45 <9=&<?5" 6<: B&:?&::5B! <"B 4< 9-8J=5 6<: 4<; ;&= -C59" J8 7-95&>" ;59;=5L& &5: 95?<&"5B <: 5" <">=5B <: 5C59 & 4 < 9-5: <" A- =<"B 45<9 &= < <A45B -459! 45 %855" ?&>4 4<C5 =--D5B -" 8;-" 45 9-8J=5: -7 45 -" &"5" <"B 4<C5 :55" 6& 4 95>95 ! J8 6& 4-8 <=<9?7-9 459 -6" :5A89& ! 45 A-==<;:5 <"B B575< -7 45 5 459=<"B: 8 45 A- A4 9-5: <" =5<B59: 6595 B5<B -9 &" 5L&=5 45 ?&"&: 59: 6595 :A< 595B -9 A98:45B! <"B 45 ;-659 -7 45 A-8" 9 6<: &" 45 4<"B: -7 <" 8";9&"A&;=5B <BC5" 8959 <"B < 95<A459-8: <"B <?J& &-8: J- 45 5 459=<"B: ;9-J=5?! 45957-95! 95?<&"5B 7-9?&B<J=5 <: 5C59 & 4S -8 45=; 5& 459 79-?459:5=7 -9 9<"A5 & 6<: A=5<9= &?;-::&J=5 7-9 45 < 5: -4-=B -8 ! <"B &? ?5B&< 5= -" 45&9 A-"W85: 45 95AD-"&">6& 4 ">=<"B 6<: -7-==-6 9<"A5 6<: 95<B -> -7 6<9 7-9 45?<=-"5 &7 45 6-8=B J5A-?5 95"A4 :8JR5A :! -9 -> -7 6<9 7-9 45?J 45 :&B5 -7 ">=<"B! =5<C&"> 45&9 78 895 -J5 B5 59?&"5B < 45 A=-:5 -7 & =&I<J5 4 A-8=B

K ;55A4 -7 45 %855" < 45 A=-:5 -7 45 <9=&<?5" -7 &M3h M$ =J$;-9 5B J -65! 64- 6<: ;95:5"

95:-=C5'-"' "5& 459!' J8 ' : &=-' A=8">' -' 45' 4-;5' 4<' :45' A-8=B' ?<" I8C95' 5"9 '&" -!' A-?? & &">' 4&?:5=7!' <"B' J ' D55;&">' <=--7' 79-?' 45' W8<995-' B&A < 5' 45' 59?:' -7' 45' :5 =5?5"

45' < 5:' 45?:5=C5:!' ?5<"64&=5!' A-8=B' "-' 6<& ' 45&9' -6"' B5:&&@5' 6<:' -' J5' <""5L5B' -' ">=<"B' ><&"' <"B' <><&"' <"B' <><&"' 45 '4<B' -77595B' 45?:5=C5:' -' =&I<J5 4!' <"B' 4<=7' 45' -8"A&-'4<B' J55"' <"L&-8:' 4<' 45' -7759' :4-8=B' J5' <AA5; 5B' <9' 6& 4' ;<&"' 6<:' 45=B' &"5C& <J=5' <' <=-' 5C5" :' 45' 5L 5":&-"' -7' 45' 5?;&95' J ' 45' <BB& &-"' -' & ' -7' --=<"B' <"B' T5<=<"B' @ 6-8=B' J5' @ <AA5; <J=5' -' 45' >5"59<=& ' -7' 45' 95<=?'' @ @ 45' ><&"' @ 6-8=B' J5' 45' >95< 59' <"B' 45' ;59&-'=5::@ 45' ?-95' A<8 &-8:' ?&"&: 59:!' 64-' 45:& < 5B' <' 45' <""5L< &-"!' 5 ' 6595' &"' 7<C-89' -7' <AA5; &">' <' ;9-5A-9< 5!' 5C5"' 6& 4' 45' A59 <&" ' 4<' 45' 6<9' 6-8=B' J5' ;95A&;& < 5B H

8 ' 45' %855"' ><C5' -"= ' C<>85' <":659:' C<>85' <":659:' A-8=B' "-' A45AD' <9?<' <"B' 45' < 5:!' 755=&">' 4<' -' :& ' : &=-' 6<:' -' J5' B5: 9-5B!' ?<B5' 45' :<?5';9-S ;-:<=:' -' 9<"A5

45' 4&9B' <= 5&?< &C5' 45"' ;&E5:5" 5B' & :5=7_ 45' R-&" ' <A &-"' -7' 9<"A5' <"B' ">=<"B ' 45' 95"A4' -C59"?5" ' 4<B' B5:&95B' 4&:' <=-' <=-">!' <"B' 45 'B5:&95B' & ' : &=-' (<8C&::&595!' 8"B59' 45' &": 98A &-":' -7' 45' %855"$?-459!' A-" &"85B' -' E;95:' 45' 9&;<9 & 5' <=-&<"A5' _ <' A=-:5' 8"&-"' J5 655"' 9<"A5' <"B' ">=<"B' <"B' A-S =<"B!' 6& 4' <' ;9-C&:&-"' 7-9' 45' %855"' -7' A-:' <:' 65=-' <:' 7-9' 45' -6' -8" 9&5: H

><&"' =&I<J5 4' 45:& < 5B ' 45' 6<:' <79<&B' -7' <D&">

K JR5A &-":' <"B' <":659:' -8A4&">' -9' "-i' A ' *+$*+!' *M31 _ =44' w&59' (<R5: @:' ;9-A55B&">:' &"' <&B' -7' *88'()

-=-<"B' <"B' T5<=<"B!' *M31$M _ ' K 45' %855"$?-459' -' (<8C&:$ =44' 8'() ' 5:--=8 &-"' -7' 45' :&\95!' 5A')' *M31!V . & ' . @' A-"7595"A5' 4<B' -"' 45' W85:&-"!' &&& 4-8=B' 459' (&&R5: '95=&5C5' 45' < 5:

A4<9>5 -7 45 < 5: 459:5=7 _ <79<&B -7 :55&"> 45? A-"S
W8595B! <79<&B -7 :55&"> 45? &"A-9; -9< 5B 6& 4 9<"A5!
*M31$M <79<&B -7 >-&"> - 6<9 J 45 :&B5 -7 9<"A5 "
5A5? J59 :45 4<=7 95: -=C5B 8; -" 45 =<: 45 J<B5
&9 B6<9B <R77-9B 5= 5"9 4< :45 6-8=B A-"S
:5" 8 5"9 7-8"B 4< 459 <>5" : 4<B J55" <
6-9D &" 45 5 459=<"B: B&::8<B&"> 45 95"A4 A-"S
"5L&-"E <9"5B J ;<: 5L;59&5"A5 45 6<: -J=&>5B -
J5 6<9 &" 4&: B5<=&">: 6& 4 459 5 -=B <77-9B 45
75<95B 45 &"C& < &-" ?&>4 J5 <: 9< <>5? - :4<9;5"
4&: <; ;5 & 5! <"B 4< 645" 45 <"B 4&=&; 6595 J 45
5<9:! :45 6-8=B! <: 459 <AA8: -?5B ?<""59 6<:! =5
45? <=-"5 <"B :& : &== H 45 A-?;=<&"5B 4< :45
6<:!8"7<&9= :8:;5A 5B 5 5"9 4<B ;9-J<J= B&S
C&"5B A-995A = ! &7 "- 459 A-":A&-8: &" 5" &-"! 5 45
A-89:5 64&A4 :45 6-8=B &" 95<=& ;89:85 5 A-8=B
"- >- - 6<9 :&">=5$4<"B5B 7-9 ">=<"B : A-"C5"&5"A5!
6& 4 "-;9-:;5A -7 <BC<" <>5 -4&?:5=7 <"B 45 < 5:
95<:-"<J= A=<&?5B =&J59 -7 <A &-"! <"B 45 9&>4 ! &7
:45 6-8=B "- 459:5=7 45=; 45?! - J5A-?5 95"A4 &7
45 ;=5<:5B

- 4&: &::85 4&">: 6595 :- A=5<9= 5"B&">! 4< &"
<"8<9 :45 :5" 5A95 <9 <C&:-" &" - -==<"B Q -
B5C&:5 4-6 45 95"A4 ?&>4 J5 : < 5B 79-? <A$
W8&9&"> <J:-=8 5 B-?&"&-" 4595 7 45 < 5:
<":6595B 4< 45 95"A4 6-8=B"- 45=; 45?5LA5; -"
4&:A-"B& &-"! :45 5?;-6595B <C&:-" - :< 4< :--"59
4<" 45 :4-8=B J5 <""5L5B J 9<"A5! -9 A-"W8595B
J ;<&"! :45 6-8=B 459:5=7 >&C5 45? 95<:-"<J=5
<::&: <"A5 H 45 5& 459 B&B "- D"-6 459 -6" ?&"B! 4-6S
5C59! -9 5=:5 :45 6<: B5=&J59< 5= 7<=:5 " 45 :<?5
B< ! <=:&">4<? 69& &"> - <C&:-" :<&B! Q <? C59

  ! K (5?-9<"B8? - <C&:-"! <"
>$&3 _ = 44 '(3 *1$.1! *M3M _ = 44 *88'( )

KM31$M

(' :-99 ' -' :55' 45' A-89:5' 4<' &:' <D5"' &"' 4&:' 65&>4 '
(' A<8:5!' 7-9' 65' 6&==' "5& 459' 45=;' 4-:5' ;--9' B&: 95::5B'
(' A-8" 9&5:' -89:5=C5:' "-9' :87759' - 459:' -' B-' & ' 7'
(' 9<"A5' ?<' "-' 45=;' 45?' 45 ' ?8:' :8J?&' -' ;<&"!'
(' 64&A4' 6&==' J955B' :8A4' <' ;59&==' -' 459' (<R5: ' <:' 4595'
(' &:' "5C59' <' 6&:5' ?<"' J8 ' =<?5" 5 4' & @H (' 5 59' 7<9!@
<=:&">4<?' 69-5' -' 89>4=5 !' 0&7' 45' %855"' 6-8=B'
(' 459:5=7' <D5' 45' ;9-5A &-"' -7' 4-:5' A-8" 9&5:!' ? 4' <'
(' 95:-=8 &-"!' &7' "5A5::<& !' -' :;5"B' 4<=7$<$?&==&-"' -7'
(' ?-"5 ' 4595 ' 45' J89B5"' 6-8=B' J5' 6&==&">= ' J-9"5' J '
(' 45' 95<=?!' 9< 459' 4<"' 45 ' :4-8=B' A-?5' -' 45' 4<"B:'
(' -7' 45' 95"A4' -9' ;<"&<9B:' 8 !' 45' B&95A &-":' >&C5"'
(' -' J-4' 59' (<R5: @:' ?&"&: 59:' &"' 9<"A5' <"B' &"' 45'
(' -6' -8" 9&5:' -' &?;5<A4' 4<' 45' 95"A4' &">' :4<=='
(' 4<C5' "-' 78==' 7--&">' &"' 4-:5' A-8" 9&5:!' A<""-' J8 ' J5'
(' ?-:' ;59&=-8:' -' 459' 8"=5::' :45' :4<==' 95:-=C5' -' <D5'
(' 45' ;9-5A &-"' -7' 45?' 459:5=7 @H

45' :& 8<&-"' 6<:' &"' 5C59 ' 6<' B&77&A8= ' <=:&">S
4<?' 4&?:5=7' B&B' "-' 4&"D' 4<' R-&" ' <A &-"' 6& 4' 9<"A5'
A-8=B' J5' C5" 895B' -"' 45' 95"A4' &">' 6<:' <' ;--9'
A95< 895!' ;-::&J=' 95<A459-8:!H' <"B' :& &">' :-' 65<D=' '
8;-"' 45' 49-"5' 4<' 45' A-" 9-=' -7' 45' -C59"?5" '
?&>4 ' ;<::' <' <" ' &?5' -' 45' 8&:5:' 45' B&95A ' &" 59S
7595"A5' -7' ">=<"B!' 45' 4-8>4 !' 6-8=B' J5' <' -"A5' 45'
J-=B5: !$:<75: !' <"B' &"' 45' =-">$98"' 45' A45<;5:' A-89:5
=&I<J5 4!' 4-65C59!' --D' 459' -6"' 6<' 5;8 &5:'
79-?' 45' < 5:' 6595' B&:;< A45B' -' 9<"A5!' &"' 5A5?J59!

K <=:&">4<?' -' <C&:-"!' <"' 5<:' -' <' ;<"&:4' A-"W85:' 5:&B5:!'
*1$.1 _ =44' *88'()
K <=:&">4<?' -' 89>4=5 !' <"' &' &:' -' 45' A-":&B595B' 4<' 45' &:' :-'
&&$.*!' KM3M _ =44' 5*. $!3 A-=B=' <775A 5B' -'<" 'A<8:5' 4<' A<99&5:'
V' &:' B5=<' :4-6:' 4<' 5& 459' 45' 4-"-89-9':895' 6& 4<=_ <:'-"5'>&C5"'
:55D:' <J:-=8 5' ;-::5::&-"' -7' 4-:5' -C59' -'<'A<95=5::':5A89& !'8"7&'7-9'4&:'
A-8" 9&5:!' -9' B-5:' 5" 59 <&"' 45?' A<=='&">!'<:' 45' =5<:' '&?;5B&?5" ' ?<'
6& 4' C<&"' 4-;5:' -' ?<D5' 45' 6< : <' 4&?!_ :!)

6& 4 ;9-;-:<=: 7-9 <""5L<&-" <B 4-:5 ;9-;-:<=: J55"A=5<9 <"B 8"A-"B&&-"<=! <"B 4<B ">=<"B ?<B5"-

*M31$M

-;;-:&&-"! 45 6-8=B 4<C5 J55"&": <" = <AA5; 5B! <"B < 95"A4<9? 6-8=B 4<C5 <D5" 45 7&5=B <><&": <9?< (5"B-I<! 64- 4<B :8AA55B5B B5 <::&: <: (&"&: 59 < <9&:! 6&A5 B5?<"B5B <" <8B&5"A5 - 95S ?-": 9< 5! <"B 6<: 6&A5 9578:5B 45 4&9B &?5 45 <:D5B 7-9 4&: ;<::;-9 :! <"B 45 %855"$?- 459 95A-?S ?5"B5B 4< 45 :4-8=B J5 <D5" < 4&: 6-9B ;<"&:4 B8A< : 6595:A< 595B <?-"> 45 -8"A&=! <"B 45 &">< =<: 95A5&C5B4&?!J8 45&" 59C&56 6<:7&59A5<"B: -9? 45 ?J<::<B-9&":&: 5B 4< 4&: ?<: 59@: 95J5=: :4-8=B "- J5<B?& 5B&" - 45 &">@: ;95:5"A5 5"9 95;=&5B (&"> 95< A4-=59@ 4< 45 6<:"-?<"@: :8JR5A 4&: 95<=?6<: 7955 -<== A-?59:! <"B 4&: 5<9: -;5" -<== ;5&&-": (5"B-I< 65" 79-?4&? -< 459&"5 < 459&"5 :<&B 4< &7 459 :-" 6-8=B <D5 459 <BC&A5! 45 6-8=B J- 4 45<9 45 5;8&5: <"B 45=; 45?" 45&"A-9;-9<&-" -7 45 9-C&"A5: 6& 4 9<"A5 6-8=B J5 "-?-95 4<" <" 5W8&C<=5" 7-9 45 A-"W85: -7 -9 8><= H

45 ?J<::<B-9=57 459 ?< 9<>5 -8"A&= 6<: 45=B &??5B&< 5= <7 59! &" 64&A4 6<9 6<: <== J8 B5A&B5B -" ">=<"B 6<: 45 -"= B&7&&A8= 4&=&; &B"5 @: ?&::&-"&" 45 :8?? 59 4<B 48">7&95! J8 -9B 59J 6<: "-6 A-?&"> -C59! J9&">&"> 45 <9 59 -45 &"> :-?5 B57&"& 5 95:-=8&-" -" =&I<J5 4@: ;<9 6<: 5L;5A 5B! <"B 45 5;8&5:! 645" 45 4<B =<"B5B! 6595 B5:&95B -95?<&" 7-9 45 ;95:5" < -8=->"5 H

45 W85: &-"! 64&A4 6<: -9&>&"<== < :&?;=5 -"5! 4<B J55"J 4&: &?5 ?<B5 ;9-7-8"B= A-?;=&A< 5B 4595 6595 6- A-"B&&-": 8"B59 64&A4 45 9-C&"A5: ?&>4 J5A-?5 95"A4 5& 459 45 ?&>4 :&?;= ?59>5 &" 45

* <77-9B -<=:&">4<?! <" K <77-9B -<=:&">J<?! <"
!D!! D D=44 '(3 *1 .1- =44 '(3

95"A4' ?&H&95!' -9' 45 ' ?&>4 ' 95 <&"' 45&9' :5=7$>-C59"S "
?5" ' 8"B59' 45' 95"A4' 9-6"

*M3M
9<"A5' "< 89<== ' B5:&95B' 45' 7&9: !' <"B' 6<:' B&:&"A=&"5B' . ."
-' 45' <BC5" 895' - 4596&:5 ' =&I<J5 4' 4<B' 5?; 5B' 45'
< 5:' -'&":&: ' 8;-"' 45' :5A-"B!' <"B' &7' 5& 459' 45' < 5:'
6595' "- ' 95:--=8 5!' -9' &7' 45' &@5"A4' -C5&$"?5" ' ?<B5'
A-?;=5 5' <""5L<&-"' <"' <J:--=8 5' A-"B& &-"' -7' 4&:'&" 59S
7595"A5!' :45' 4<B' 7-8"B' 79&5"B:' &"' --=<"B' 64-' 4<B'
5"><>5B' :5A95 = ' -';8 ' 9&==' <"B' =8:4&">' &"' ">=&:4'
4<"B:' <77-9B' 6<:'&": 98A 5B' -'<AW8&5:A5'&"'<" ' 59?:'
-"' 64&A4' 9<"A5' 6-8=B' J5' &"B8A5B' -' >-' -' 6<9"' J8 '
4595' 6595' 8= 59&-9' B5:&>":'&"' 45' <AW8&5:A5"A5' 64&A4'&"'
<" ' -"5' J8 ' =&I<J5 4' 6-8=B' 4<C5' J55"' A<==5B' 95<A45S
9-8:' @ = 4-8>4!@ :45' :<&B!' @&' ?&>4 ' J5' >95< = ' ?&:$
@=&D5B' -' 4<C5' 45' &">' -7' 9<"A5' <J:--=8 5' =-9B' -7'
@ 4-:5' A-8" 9&5:!' 5 ' 9< 459' 4<"' 45' :4-8=B' "-6' 95R5A '
@ 45?!' <"B' >&C5' A-89<>5' -' 45' ;<"&<9B!'& ' 6595' J5 59'
Q45' :4-8=B' <AA5;' 45' -7759!' <"B' 5" 59' 6<9' 6& 4' 45'
@ &">' -7' ;<&" ' 5' ?8:' 4<C5' <' =-">' &?5' J57-95' 45'
@A<"' <A4&5C5' :8A4' <"' 5" 59;&E&:5!' B89&">' 64&A4' ?<" ' -;$
Q;-9 8"& &5:' ?< ' 7<==' -8 ' -' : -;' 4&:' >95< "5::" <"B'
Q"- 4&">' :4<==' ?-95' 95 <9B' 4&?' 4<"' 45' 4-=B&">' 45'
Q>95< ' -6":' -7' =-==<"B' <;B' T5<=<"B' -8 ' -7' 4&:'
@4<"B:!' <:'& ' &:' =&D5= ' 45 ' :4<==' J5' :-' D5; @ H

45' :; ' : : 5?' 6<:' --' 65==' -9><"&:5B' 49-8>4-8 '
89-;5' 7-9' 45:5' ?<"-58C95:' -' J5' D5; ' :5A95 !' <"B' 45 '
6595' <:' 65==' 8"B59: --B' < ' <9&:' <:' < ' 5: ?&": 59 '
45' 5;8 &5:' 6595' :5" ' 7-9' <7 59' :&L' 655D:@ B5=< '
45 ' 6595' 9<? ?5==5B' J ' &": 98A &-":' 79-?' 4-?5!' 45'
:5":5' -7' 64&A4' 45 ' --' 65==' A-?;9545"B5B' 45"'
<77-9B' A<==5B' -"' 45?' 45 ' ?<B5' <' @A-=B' 5LA8:5!@ :-?5'
-7' 45?' J89: &">' -8 ' 6& 4' 4<9B' 98 4:' < ' 459' (<R5: @:

9&AD:' <"B' 46<9 : H' /$ 45' 6595' D&"B= ' 95A5&C5B' J ' 45'
&">'' J8 ' 645"' 45 ' ;9-B8A5B' 45&9' ;9-;-:<=:' 45 ' 6595'
*M3M 5J98<9 <J=5' -"= ' -' -7759E -' J5' 4&:' :8JR5A :' &"' 45':5":5'&"' 64&A4'
45 ' 4<B' J55"' 45' :8JR5A :' -7' 4<9=5:' # ' -' Q><9$'
Q 9&:-":'Q 6595' -' J5' <B?& 5B' :<C5' Q 4-:5' -7' 45&9' -6"'
Q A-8" 9 Q 45' &"A95<:5B' >95< "5::' &" -' 64&A4' 9<"A5'
6<:' -' J5' 5?; 5B' 6<:' 48:' Q<' >95< "5::' &"' 45' <&9 Q

45' 95"A4' -8"A&=' 5" 59 <&"5B' 45' 5;8 &5:' < ' <'
J<"W85 !' -' B&:A-C59!' Q 645"' 45 ' 6595' ?599 !Q &7' 4595'
6<:' ?-95' J54&"B ' ' A<?5' -8 ' Q 4< ' 45' :5<' -6":'
Q<=:-' 6595' -' J5' 95:59C5B Q H' "' 45' 7<A5' -7' =&I<J5 4Q:'
< & 8B5!' ?-95' <">&J=5'<BC<" <>5:' 6595' "55B5B' -' 5?; '
45' &">'&" -' <' 6<9!'<"B' 45' 65==$7-8"B5B'&?;95::&-"'< '
45' -89 ' 6<:' 4W ' Q 645"' & ' A<?5' -' 45' ;-&" ' 459'
Q (<R5: ' 6-8=B' 4&"B59' 9< 459' 4<"' 789 459' 45&9'
Q <A &-" Q H

-9B' 59J '<99&C5B'&"' 45' ?&BB=5' -7' 5J98<9 ' 6& 4'
45' <9 59!' 64&A4' 6<:'<AA5; 5B' 6& 4' 45' B85' :-=5?"& &5: '
8 ' 4&:' ;-=& &A<=' &": 98A &-":' 6595' C<;-89&">'<"B' ?5<"S
&">=5::' 45' %855"' <775A 5B' -' J5' <"L&-8:' 4< ' 9<"A5'
:4W8=B' >-' 7-96<9B!' 64&=5' :45' 4<B' 459:5=7' &"B8A5B' 45'
< 5:' -' ?<D5' 45&9'-7759' -7' 45?:5=C5:' C<=85=5::' "'
8"B< ' 45' .3 4' -7' 5J98<9 'x (<9A4' *+ !' 45' &">':5" '
7-9' 45' 5;8 &5:' -'>&C5' 45?' 45&9'<":659' "' 45';95S
:5"A5' -7' -9B' 59J ' 45' 4<"D5B' 45?' 7-9' 45&9'>--BS
6&==' J8 ' 45' 95>95 5B' 4< ' 45' A-"B& &-"' -7' 9<"A5';95S
C5" 5B' 4&?' 79-?' J5&">' <J=5' -' <::&: ' 45?' 45 '
:4-8=B' "B' 4&?' <'>--B' "5&>4J-89!' 45' :<&B!'<"B' :8A4';9&S
C< 5' >--B' -77&A5:' <:' 45' A-8=B' B-' 7-9' 45?' :4-8=B' "- '
J5' 6<" &">' J8 ' -' J5' 45&9' :-C595&>"' 45' 6<:' -J=&>5B' -

K <77-9B' -' <=:&">4<?!' 5J ' F' 59J '<"B' <77-9B' -' <=:&">$'
*.$.. _ = 44 ' '(3 J<?!' 5J ' .F$ (<9A4' M' _ ' = 44 '
K <77-9B' -' <=:&">=&<&"!' 5J ' '(3
*.$.. _ = 44 ' '(3

B5A=&"5' 48:' B&: ?&::&">' 45?' 45' B5:&95B' 59J ' <"B'
<77-9B' -' 7-==-6' 4&?' &" -' 4&:' A<J&"5 !' <"B' <=-"5' 6& 4'
4&:' 6-' :5A95 <9&5:' 45' 65" ' -C59' 45' 64-=5' 4&: -9 ' -7' *M3F .$%/
4&:' "5>- &< &-":' 6& 4' ">=<"B' 8;-"' 45' :8JR5A ' 5'
:4565B' 4-6' 45' <"B' 4&:' J9- 459' 4<B' J55"' ;=< 5B' 6& 4'
<"B' 9&7=5B' 6& 4 ' ' 6<:' &?;-::&J=5' 7-9' 4&?!' 45' :<&B!' -'
;=<55' :877&A&5" ' A-"7&B5"A5' &"' =&I<J5 4' -' C5" 895' &" -'
<' 6<9' J8 ' 45' @5;95:5" 5B' 4&?:5=7'<:' : &==' 6&==&">!' &7' :45'
6&:45B' & !' -' ?<D5' <' :;5A&<=' =5<>85' 6& 4' ">=<"B' -'
95?-": 9< 5' 6& 4' 4&=&;!' &"' A-""5L&-"' 6& 4' 459!' -"' 4&:'
95< ?5" ' -7' 45' -6' -8" 9&5:' <"B' -' :456' 4&?' 4<' &7'
45' ;59:&: 5B' &"' C&-=5"A5' 45' ?8:' A-8" ' 8;-"' 45&9' 8"& 5B'
5"?& ' &' 6<:' <' A-89:5' 64&A4' 45' %855"' 459:5=7' 4<B'
-"A5' :8>>5: 5B' :45' 6<:' 8?C&==&">' -' :55' 45' 9-C&"A5:'
J5A-?5' <""5L5B' -' 9<"A5!' <"B' 5' 45957-95' 98: 5B'
4<' :45' 6-8=B' <;;9-C5

-' 4<C5' A-":5" 5B' 6-8=B' 4<C5' -J=&>5B' ">=<"B'
5C5" 8<== ' -'>-' -' 6<9!' <"B' 45' %855"' 6<:' J5" ' 8;-"'
7-9A&">' 5"9 ' &" -' & ' :&">=5$4<"B5B' <77-9B' "-' C59 '
4-"5: = '95;=&5B' 4<' 4&:' ?&: 95::' 6-8=B' < ' -"5' &?5'4<C5'
J55"' :< &:7&5B' 6& 4' 95?-": 9<"A5!' 7-9' 75<9' -7' 4<9?' -' 45'
;59:-"' -7' (-":&589!' 64-?' :45' =-C5B' :-' B5<9= ' J8 ' 45'
6<:' :89;9&:5B!' 45' :<&B!' -' :55$<' 95"A4' &">' 9578:5' -7759:'
64&A4' 4&:' ;95B5A5::-9:' 6-8=B' 4<C5' A<8>4 '< ' :-' 5<>59= !'
;9-77595B' -' 4&?' <:' 45 ' 6595' 6& 4' 45' >--B$67&P' -7'
">=<"B ' 45' A4<"A5' ?&>4 ' "-' 95 89"!' <"B' 45' :4-8=B'
"-' &"R895' 4&:' 95;8 < &-"' J ' "5>=5A &">' &

45' &">'<": 6595B' W8&5 = !' 4<' 45' A-8=B' "-' :<A9&7&A5'
4&?:5=7' 7-9' 45' >--B' -7' - 459:' 7' 45' &">' -7' ;<&"'
:<6' 9<"A5' <"B' ">=<"B' 8"& 5B' <"B' B5 59?&"5B!' 45'
6-8=B' 95:;5A ' 45&9' 6&:45:' 45' A-89:5' 64&A4' 45' 4<B'
:8>>5: 5B' 6<:' 45' J5: !'<"B' 8"B59' 45' A&9A8?:<"A5:' 45'
-"= ' -"5';-::&J=5 H

K <77-9B' -' <=:&">4<?!' (<9A4' F$*F _ = 44 ' '(3

*M3: P&&9AJ

6 - 8=B 4<C5 GH=5<:5B =&I<J5 4 65== - 4<C5 :55" 9<"A5 <"B ;<&" < 6<9! <"B 459:5=7 - 4 -=B &" 459 4<"B: 45 D5 : - 7 45 T5<=<"B 4<9J - 89: ' J8 459 B&;=-S ?<A 6<:J<77=5B! <"B :45 A - 8=B " - A - "A5<= 459 &99& < &-" " -;;-9 8"& -77595B & :5=7 7-9 45 B&:;=< - 7 459 5?;59

(-9><"! 64 - ? <99 4<B "<?5B <: 4<C&">& ": &>< 5B 4&? - D&== 459! 6<: 95:&B&">& " <9&: 45 B5?<"B5B! 49 - 8>4 - 9B 59J ! 4< 45 :4 - 8=B J5 <995: 5B <"B :5" - ">=<"B 45 ;9 - ?&:5B - : ;<95 4&: =&75R J8 :45 B5:&95B - 5L - 9 - 8 - 7 4&? Q 45 A&9A8?: <"A5: - 7 Q 45 ;9<A &A5 @ <B 45 &">J55" 7<=:5 4 6 - 8=B 4<C5 >&C5" 45 ?<" < 4&" - 5:A<;5 5 : - 7<9 A - ?;=&5B! 4 - 65C59! 4< (-9><" 6<: 49 - 6 "&" - 45 <: &=5 &: 9 - - ?: 6595 :5<9A45B <"B 4&: ;<;59: 6595 :5&I5B 5 4<B &?5 - B5: 9 - 45 ?-: &?;-9 <" J8 < =5 59 6<:7 - 8"B 79 - ? <99 - " 45 :8JR5A - 7 45 ?89B59! A - "S <&"&">" <==8:&-" - : - ?5 - "5! 64 - 6<: ;9 - J<J= 45 A - A4 %855"! <"B! <7 59 J5&">=--D5B -C59 J 45 - 8"A&=! & 6<: ;=<A5B 6& 4 45 - 459 B - A8?5" :&" - 9B 59J @: 4<"B:

8 4&: 6<: " - 5" - 8>4 45 %855" :<&B :45 ?8: 4<C5 (-9><" 4&?:5=7 45 95"A4 - 8"A&= -77595B - 9 4&?! <"B ;8"&:4 4&?&7 45 6<: 7 - 8"B >8&= 45 6<: " - :< &:7&5B 6<: 4&" 5B - <77 - 9B 4< J57 - 95 45 A - 8=B J5 J9 - 8>4 - 45 J<9 Q 45 6 - 8=B 4<C5 : - ?5 Q ?5=<"A4 - =&AD B98>&" 45 <: &=5! <"B ;5<D <6< 6& 4$ Q - 8 <AA8:&">" J - B !@ <"B 45 <AA8:< &-" 6<: 64< =&I<J5 4 B5:&95B 45 6<" 5B - =5<9" <"B - J5 <J=5 - ;8J=&:4 45 "<?5: - 7 45 ;59: - ": 64 - 6595 :5 &"> 45 <::<::&": - 6 - 9D 45 4<B <=95<B >- < 45 - ;5 45 95W8&95B 45 "<?5: - 7 45 95:

45 &">! <: <77 - 9B :<&B! 6&:45B (-9><" < 45 J - - ?' - 7 45 :5< 5 6<: " - - 9& - 8:= 45 %855" - 7

A- :@ :59C<" !' <"B' -"' 45' 9<AD' 45' ?&>4 ' ; - : :&J= ' 5" -8>4' ?5" &-"' 459 ' =&I<J5 4' 95><9B5B' 4&?' <:' <' ?595' ?89B5959_ < 4-=&A' 89-;5' 95><9B5B' 4&?' <:' 45' =- <=' :59C<" ' -7' <"'&"R895B' ?&: 95::!' <"B' -' 4<C5'>&C5"' 4&?' 8;' <' 4<' ?-?5" ' ?&>4 ' 4<C5' ;95A&;& < 5B' 45' A-"C8=:&-"' 64&A4' 6<:' 4<">&">' -C59' 5"9 @:' 45<B ' ' 6<:' B-8J 78=!' &"' 7<A !' 645 459' 45' A-8=B' J5' A<99&5B' B-6"' -' 45' :5<' 45' 8&:5:' 45=B' 45' 9-<B:' 49-8>4' -9?<"B !' <"B' 45' ?&>4 ' J5' A<99&5B!' -77!' <"B' -9B' 59J ' ;594<;:' D&==5B

8 ' =&I<J5 4' 6<:' -J: &"< 5' <"B' C&-=5" ' <=:&">$' 4<?' :8>>5: 5B' 4< ' :45' :4-8=B' 5L;95::'>9< & 8B5'7-9' 45' <995: ' 45H6-8=B' "- ' B-' & H <C<>5' < ' 459' ;-=& &A<=' B575< !' <"B' >=<B' -'7<: 5"'<" ' - 459'7<8= :'8;-"' 45' &">!' :45' :5" ' 4&?!' &": 5<B' -7' 4<"D:!' -"5' -7' 45' ?-: ' :&">8=<9' =5 59:' 5C59' <BB95::5B' J ' -"5' -Ca95&>"' -' <"- 459' 45' <AA8:5B' 4&?' -7' A-"A5<=&">' 45' ?-: ' &?;-9 <" ' -7' (-9><"@:' A&;459:!' <"B' -7' A-": & 8 &">' 4&?:5=7' 45' ;9-S 5A -9' -7' <::<::&":' <"B' A-":;&9< -9:' 45' :<&B' 45' 6<:' ;5&C"& &">'459'6-9: ' 5"5?&5:' -' C&:& ' (-9><"!' -' <99<">5' 4&:' B575"A5' 7-9' 4&?!' <"B' ;9-?; ' 4&?' -' A-"A5<=' 4&:' <AS A-?;=&A5: ' 45' -=B' 4&?' 4< ' 45' ?8: ' J5' <:=55;!' -9' 4< ' 45' ?8: ' J5' J=&"B5B' J ' "5A9-?<"A ' ' 45' :<?5' &?5' :45' 69-5' -' < 459&"5' B5' (5B&A&' 4< ' 459' :-"' 4<B' J5 59' 95?5?J59' 4< ' 45' 6<:' "-' 7<C-89& 5' -7' 45' ;9&5: :!' <"B' 4< ' &7' 45' B&B' "- ' A-":&B59' J5 59' 64< ' 6H<:' B85' -' <' :&: 59' -C595&>"!' 45H ?&>4 ' =&C5' -' :55' : 9<">5' 4&"-7: <=:&">4<?' :<&B' 45' 4<B' "5C59' :55"' 459' :-' 5L$

K <=:&">4<?' -' <& -9B!' (<&&A4' ,$ K_ =44 ' '(3

0K 45'=<">8<>5'-7' 45:5'=5 59:'6<:' <:' 95?<9D<J=5'<:' 45&9' :8J: <"A5 -' 45' &">' :45' 69-5_

@'#- 5!' 8"' ;<W85 ' W8&' ?5' 7&: ' 5"S 9<>`5' C-&9 ' '>9<"B5' ;5&"5';-899< $' R5' &?<>&"59' W8&58::&5!' 5: `' 5:C5&=`' ;-89' -8&9' "-"' :58=5?5" 'W8&=' "5'78: ' =&C9`' 5"' ?5:' ?<&":!'<&":' W85' ;9&": 5: A-":5&=' 5 ' B5=&J59< &-"' W8&&=' :5' "5' B58: '7<&95'R 5 '-8 95' "5';59?5 95'W85' =5:' A&;495:' 5 ' 5:A9&; :' 78::5" ' C58' ;<9' ?5:' ?J<::<B589:!' ?<&:' W8&' ;&:' a: !' ;59?5 95' W85' ?5:' ;=8:' >9<"B:' 5""5? :' =5' B-&C5" ' C&:& 59' ;-89' ;<9' 58L' <AA-9B59' :89' :5:' 95$' :;-"A5:!' 5 ' ;<9' =5' A<A45 ' =5:' A-?S ;=&A5:' B5' : ' 5"-9?5' 9<4&:-" ' (-"' &58!' W8&"5>9-?<"A&5'C-8:'<'7-9A5"`

*M3M
(<9A&&

<: ;59< 5B H 5 4-8>4 & ; 98B5" - 5LA8:5 45 =5 59: 64&A4 6595 k 6&B 5" -77 6& 4 < B9<7 - 7 45 ;5"!J8 J5>>5B 45 <"> -&? ;8 5 45 ;<::&-"< 5 6-9B: - 45 %855"@: <775A &-" 7-9 4&?

&9 &==&<? <B5 6<: :5" - C59 - 95;5< 459 B5S ?<"B: 7-9 45 B5=&C59 - 7 (-9><"

45 -AA<:&-" 6<: ?-: &"-; ;-9 8"5! 7-9 45 95<A45B <9&: -" 45 B< -" 64&A4 45 8D5 -7 8&:5 x (<9A4 *M$.M 8"7-=B5B 45 J<""59 -7 45 -= 5<>85!<"B 45 -8:5 -7 -99<&"5 ;8J=&:45B 45&9&" 5" &-" -7 A-59A&"> 45&9 -C595&>"! &"7=&A &"> 45 B5A955: -7 95" 8;-" 9<"A5!<"B A8 &"> -77 45 &"> -7 <C<995 79-?' 45 :8AA5::&-" 45 <9B&"<= -7 -89J-"! 45 &"> -7 <C<995@: 8"A=5! 4<B J55" ;8 7-96<9B <: 45 "-?&"<= 45<B -7 45 ;<9 45 ;=5< 6<: ?&:>- 59"?5" <"B -=59< &-" -7 4595: 45 9&"A5: -7 45 5<>85 :<&B 4< 45 ?5<" " -' 489 -' 45 &"> J8 5LA-??8"&$

@5:;9& :& <C<" ;-89 C-8: <C58>=59 =5: 58=L d "5 C-&95 A-??5 5"" 8" ?&9-&9 C-: 95 4<I<9B ;9-;95! d W8& &58 "5 A-"A5B5 -8: :& :&"Aa95: :8JR5A :" "& :& <BB-"" `: d C-8: <B-959 W85 "5 ;-899 5: 5"&9 =5: J&=<"A5: 5"" J9<"=5 B5 =589 9-; >9<"B5 7&B5=& ` 5' C-8: R895 W85 :&&= ?5 :59< " `R5 A-"A=89< B5 "@<C-&9 =&>8`5 <C5A =5 - ! ?<&: <C5A 8"" =`>< -8 8">' -8C59"589 B5 `?&"<&95:! 5 <8:: >9<"B5 4-" 5 B5 ?5 ?5 95 5"" :& ?<8C<&: A-?;<&>"&5 < 8!9': $!*'$! !(7 *6 '(3 1 (<9A4 *+$.+ = '(3

"B <><&"' - < 459&"5 B5@ (5B&A& E (<B<?5 ?< J-""5 l 89!

@ 5: 5 <B<>5 C-8: 5LA8:59< 5"" ?< A-": A&5"A5 u 4& 7< W8<= A45 ;8 ! "-" a 5"8 -' <7<95 ;&c v <9 <8 95S ?5" R5 ?@5"" ;=<&"B9-&< 9-; B@8"5 ;9&"A5::5 W85 R@< <" <& `5! W8@5==5 B58: ;59?5 95 <8 ;&: <==59 :<": =&?;8>"59 W85 =5 - :5 78: <" -8J= `B5 :-"" -77&A5 B5 "5 5"&9 A-?; 5 B5 =< &5! "-"" :58=5?5" B5 =<95;8 < &-" B@8">' - A-??5 =8 ! ?<&: "-"" :58=5?5" "-"" =&C959 =5 9<&A 95! <&": >H&& ;&: 5: "5 ;59$?5A 95 =< 95A459A45 B5 :5: ;<;&59:! A-??5 :&&= B5& ;=8: A-?; 5 B@8">' C&=<&"' W85 B@8">' 9&"A5 5 5?;: C&5"B9<;58 5: 95! A-?5=5: C&5&==5: ;9-;45 &I5"& :-8C5" ! W85 =5:5?;5$:A4589: B5 :&R8: 5 7<&A 5= 8 B-""5S 9-" ;=8: B5 ;5&"5 C-&95 W8<" &= <89< 9a: <>9`<J=5 8"5 <? &`5==5 W85 =< ?&5""5' = ?5 :-8C&5" W85 -8: =5: 95=&>&58L B5 :-"" ;<: "@-" 58 -8:R-89: @I &= :89 =8 : :58= :<": <B-959 W85=W85 <8 95 &' =5 =&- "5 ?5 95:;5A 59< ?&58=LR C-8: C5995I A4-:5 <B?&9<J=5 ;95?&59 &W85 ?-89&9! "-"" -J: <" =5 =`>< 5 :< J5==5 :8&A 5!@ \A _ =44 :!)

K <=:&">4-?' -' <77-9B! (<9A4 ! D! < =44 '(3

A< &-"' 48">' -C59' =&&?' &7' 45' 95:&: 5B'' <"B' 8&:5!' 6& 4' 65" ' 4-8:<"B' ?5"!' ;<&B' -8 ' -7' 45' ;<"&:4' 95<:89 !' 6<:' 5L;5A 5B'&"' <9&: ' 45' 9&:&">!' 64&A4' 4<B' J55"'=-">' &"' ;95;<9< &-"!' 4<B' J55"' ;95A&;& < 5B' J ' 45' <99&C<=' -7' 45' 5;8 &5:' 79-?' 45' < 5:' ' 4<B' "-' J55"' ;95S C5" 5B' J ' 45' 9578:<=' -' 45=;' 45?!' <"B' 45' W85: &-"' 645 459' 6-' 95=&>&-":' A-8=B' :8J:&: ' :&B5' J ' :&B5' &"' 9<"A5' 6<:' -' J5' 9&5B' J ' 45' :6-9B

7' 8&:5' 6-"!' 9<"A5' <"B' ;<&"' 6-8=B' 45"' &"5C& S <J=' 8"& 5' <><&": ' ">=<"B ' 5><9B5B' J ' 45' =&>4 ' -7' ' <9 4-=-?56!' 45' ?-C5?5" ' :55?5B' =&D5' Q<: 9< <$ Q>5?' B5C&:5B' J5 655"' 45' -89 ' <"B' 45' 8D5' 7-9' Q 45' -C59 49-6' -7' 95=&>&-" @H =&I<J5 4' J<B5' <77-9B' 5=' 45' &">' 4<' &7' 45' 6-8=B' <AA5;' 459' 45=;' :45' 6-8=B' <&B' 4&?' $6"4 45' 6&&-=5' ;-659' -7' 459' 95<=?' <C<995' <"B' -"B5' -"=' 6<& 5B' 4&:' -9B59:' -' 7=' -' 4&:' :&B5

8:;&A&-"' 4<B' 7-9' -"A5' J55"' 8"R8: ' -' 7=5"9 ' 45' -8"A&=!' 6& 4' :A<9A5' -"5' 5LA5;&-"!' <BC&:5B' 4<' 45' :4-8=B' &5=B' -9' 5?;-9&:5' 45' 6<:' 4&?:5=7' &"A=&"5B' -' 7&>4 "' <"B' 45' 8D5' -7' (-" ;5":&59' : --B' J ' 4&?!' :< S &">!' Q 45' 6<:' <:' >--B' < < 4-=&A' <:' <" !' J8' 6-8=B' "-' Q>&C5' 6< ' -' 95J5=:@H

&C&=' 6<9!' 4J65C59!' &7' -"A5' J5>8"!' 6-8=B' J5' &" 59S "5A&"5' 8&:i' 6<:' 45' &B-=' -7' 45' >95<' -6":!' 45' :95"> 4' -7' 45' 8=9<$ & 4-=&A:' = &">' A89&-8:=' &"' 45' ;9-=5 <9&<' -7' 45' A& &5:!' 64&=5' 45' 5:8&'A-"75::-9:' 6595' =< &">'<' :9<&"' -"' 45' <9&: -A9<A !' J ' ?<D&">'<B4595"A5' -' 45' 5<>85'<' A-"B& &-"' -7' 95A5&C&">' 45' 9& 5:' -7' 45' @ 489A4' < 459&"5' B5' (5B&A& 65" ' -77' -' 4<=-":!' 64595' 45' <9? ' -7' 45' 5<>85' 6<:'<::5?J=&">!' Q -' 9 ' Q7-9'<' ;5<A5<J=5' :5 =5?5" @

Q . *3 /."' &' .44&$5' .$%* 6 .44&$5' &' . *3 *." ' .$%/' .. !$*' - =44' '(3' .) !$' M - =44' :!)

T' # '

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' 6<:' &"' 45' ?&B: ' -7' 4&:' A-"78:&-"' 4<' <B5'A<?5' 6& 4' 4&:' 95W85: ' 7-9' 45' :8995"B59' -7' (-9><"' 45' -8"A&=' :<&B' & 'A-8=B' "- ' ; -::&J= ' J5'A-? ;=&5B' 6& 4' 5 !' :-' <"L&-8:' 6<:' 45' &">' -' ;=5<:5' =&I<J5 4!' 4<' 45' 5<>85' 75<95B' 45' 6-8=B' A-":5" !' <"B' 6-9B' 6<:' ;<::5B' -' 45' 85' B@ 8?<=5!' 64-' A-??<"B5B' <' JJ5C&==5!' -'=--D' -8 '7-9' <"B' 95:A85' 4&? ' -"C&"A5B' J ' 4&:' -6"' -J:59C< &-"' 4<' 45' A-8=B' "- 'A<99 ' 4&?' B-6"' -' 45' :5<!' <B5' <AA5; 5B' <' ;9-?&:5' 4<' 45' :4-8=B' J5' D5; ' <' ;9&:-"59!' <"B' 65" ' J<AD' -' 5L;=<&"' -' =&I<J5 4' @ 8?<=5' :5 ' 8;-"' 4&?' "5<9' ?&5":!' <"B' "- ' 7&"B&">' (-9><"' &"' 4&:' A-?;<" !' A-" 5" 5B' 4&"&:5=7' 6& 4' >&C&">' 4&?' <' :5C595' J5< &">!' <"B'=5 ' 4&?'>-' -'95;-9 ' 45'<":659' -7' 9<"55' -' 45'B5?<"B'7-9' 45'5L 9<B& &-"' -7'<' < 4-=&A H' 45' &">' 6<:' "- ' 95:;-":&J=5' 7-9' @ 8?<=5@:' &":-S =5"A5'' J8 ' 4&:' &"B5A&:&-"' 6<:' 5<:&= ' A-": 985B' &" -' 95<A459 ' 5"9 ' -7' #<=-&:' 4<B' "-' A4<9<A 59' -' 7<==' J<AD' 8;-"!' <"B' C45'" 45' 6<:' 4-"5: ' 45' A-8=B' "- ' -J <&"' A95B& ' 7-9' & ' 45' 9-<B:' 6595' -;5"' $C&H45'' (-9><"' 6<:' 7&9: ' <995: 5B!' <"B' 45' &">@:' 6-' :5A95 <9&5:!' (' #&==59- ' <"B' (' &"<9 !' 6595' D"-6"' -' 4<C5' 45"' -;-:5B' 4&:' :8995"B59 ' 5<D"5::!' --!' 6<:' <=?-: ' <:' B<">59-8:' <:

H' 45' 8"A&-'&" 597595B'7-9' (-9><"' <:' 65==' <:' 8&:5!' <"B' 45' -;5'4&?S :5=7' 6<:' ?-C5B' &"' 4&:' J54<=7' (-9S <:?8A4j' 69- 5'-"5'-7' 45' ">=&:4'<' <9&:' -' <' 79&5"B'<' -?5!' (<:' 4595' &:' <' :&"A595' <?& ' : &==' A-" &"85B' J5 655"' 4&:' (-:' 49&: &<"' (<R5: ' <"B' 45'%855"' -7' ">=<"B!' 64-' 6&==' "5C59'=5<C5' -' ;59:5A8 5' (-9><"' -' 45' B5< 4!' 4@ ' =&J59 ' ?8:' 45' ;9-S A895B' J ' <==' ?5<":!' 4<' 45' ?<' "-' J5' <' 45' ?59A ' -7' 5& 459' -7' 45:5' ;9&"A5:'' (-C5!' 45957-95!'4&:' -=&"5::' &"' 45' ?<' 59' 5 '4&?':55?' -' <D5' & 'C59 ': 9<">5' 4<'4&:' (<R5: ' ?-:' 49&: &<"' 6-8=B!' &"' 7<C-89' -7' 45' %855"' -7' ">=<"B!' <"' 5"5? ' -' -B <"B' 4&:' 489A4!' &?;9&:-"' (9' (-9S ><"!'<"' ">=&:4'>5" =5?<"!64-'=&C5B' &"' J<"&:4?5" ' 7-9' =&&:' 7<& 4' <"B' 4&:' 95=&>&-" ' 5'?<' 5==' 45' &">' 4<' &7' 45' 4<B' B5=&C595B' (9' (-9><"' &' :4-8=B' 4<C5' J55"' <' >&@5<' -775"A5'&"' 45' &">' -6<9B:' -B' -'A-":5" ' -' 45' 5778:&-"' -7' &"" -A5" ' J=--B!' <"B' <' >95<'B&:4-"-89' -'4&?' ?B' 45'95<=?' -7' 9<"A5' &:' -=&"5::' ?<'&$5W8&95' 45'=&J59 ' -7' (9' (-9><"' 7-9 =&6& 4!' <"B'<==5>5' 4<' 4&:' -=&"5::' 6&==' 5?S ;=- '4&?'&"' 45':59C&A5'-7' 45' <4-S =&A' 489A4@< $$ '$*'5 ' V*! ' '$ 5*. ' !(' $ ' 3' ' *6' = ' =* 7'(' ;9&=' *M3M' =44' '(3

B5=&J59< 5 7<=:54--B 45 &"> ?&>4 J5 D&==5B -9 ?&>4 J5 B5;-:5B 45 8D5 -7 8&:5 6<: :8;;-:5B -95W8&95! <:-"5 -7 45 A-"B& &-": -7 ;5<A5! 4< (9$ *M3M (C Q ?<"B ! &A<&$B ! <"B 9& <" ! 6& 4 45 4<C5": <"B:5< -6":!@ :4-8=B J5 ?<B5 -C59 -5 4&?!H <"B <77-9B 6<9"5B =&I<J5 4 ($ -;95;<95 7-9 45 6-9: 5 <:A59S <&"5B 4< G <9 -7 45 -8"A&=! 5A95 <9 #&==59- 5:;5S A&<== ! 4<B <BC&:5B 5"9 -: :<C5 9<"A5 79-?A&C&- 6<9 J B&C59 &"> 45 : -9?8;-" ">=<"B! <"B 4< #&==59- 4<B >-"5 :-789 <: -A-":8= (5"B-I< -" 45 ;-::&J&4 -7 <8"&-" 6& 4 ;<&" <><&": 45 %855"

45 &"> 4<C&"> B5A=&"5B 459 -7759 -7 45=;! :45 6<: B9&C5" J<AD -"A5 ?-95 8;-" 459 @"< 89<= <==&5: @ 45" < 4-=&A 89-;5 495< 5"5B -A-?J&"5 <><&": 459! :45 95?5?J595B 4< :45 6<: < 9- 5: <" -C595&>" -8"> 4<?;59"-6"5 -7 <9 &"> -"! < "<?5 <: 65== D"-6" <: & 6<: 4-"-895B &" 45 8>85"- <9? ! 6<: A-??&:&-"5B -> - - 45 &"> -7 <C<9&E5! <"B - 5== 4&?' 4< &7 45 &"> -7 9<"A5 6<: ?&:=5B &" - R-&"&"> 45 5<>85! 45 ?&>4 A-8" -" 459 :8;;-9 ! <"B 4< :45 6-8=B :5"B - 59?<" <"B &"C& 5 45 8 459<": - R-&" 7-9 45 A-??-" B575"A5 H (B5 H>89 A<?5 <><&" - ">=<"B (-"5 6<: >&C5" - (-" ;5":&59 -5"<J=5 4&?' -4-=B &A<9B ! 64&=5 =&I<J5 4 4<B 95A-89:5 - 459 ;5"! <"B 5"B5<C-895B -CL6-9D B&95A = 8;-" 45 ?&"B -7 @ 459 B5<9 J9-459 @ < <9&: K

K <77-9B - <=:&">4<?! (< 1$*1 _ =44 '(3

K J: 9<A -7&": 98A&-": - 9S 489 4<?;59"-6"5! :5" - 45 &"> -7 <C<995! ;9&=$ (< *M3M < =44 :!)

K G -8=B -8 J8 'D"-6! ? ?-: B5<9 J9-459! 45 >9&57 64&A4 *755= < 45 B<">59 -64&A4 -8<95<==-6S &"> -89:5=7 - J5 5L;-:5B! -8 k 6-8=B ;59A5&C5 4< 4595 6<: "- %$. $ *3 / 7&$ 5 &3 7/&" & " * / "&$ $ %& 3 4&$ / ! /.3 &3 " 4 8&5 9 * * * !& *# / . $: *3 . .*3 . $. &3 .35 /&3& $ %.3 4&$! .% .35 &$ # .35 $.* &$ *3; .5 &4 4&$%*3 / "* & #"* & & $. /&$* < " .$(& & / # $. 5 # & $ +& 3%* .35 &# *35 3 &* & $. / *$(* .3 =.$5&3 / .44 % *&3 7/*%/ "#& 5 3

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7 4&?! 4-65C59! 4595 6<: J8 =& =5 4-;5 5 4<B "- =-C5 7-9 4&: A-8:&"" -7 8&:5! <"B 4-:5 64- D"56 4&?' J5: B&B "- J5=&5C5 4&?' -' J5 95<A459-8: 5 ' 64&A4 &: J5 59!@ 69- 5 <77-9B! -' 7<==&" -' 45 4<"B:' -7 <' B55;' B&::5?J=59! 64&A4 4<C5 5C59 <D5"' 45 &">' -' J5! <"B B-' ?-95 4<"' 4955$W8<9 59:' J5=&5C5 &

?5 -' :;5<D 48:' 7955= ' -' -8 ' =<6 -' 45&9 &">! <"B 6& 4: 9<">5 ;9-5: ' J57-95 -B! ' B-' & ' -"= '7-9 95W85: :' <"B ?-": 9-8:' A-"B& &-":' 45 4-"-89 <"B 45 -C5 ' 45<9 -8 6-8=B ?<D5 -8 J95<D -89 ;=&>4 5B =<:é 4&"D -8 45 A=-D5 -7 95=&>&-"' 6-9B i 5:8:é 6<:' & '5C59 :55"' 4<' &"' 64&A4 45 ' 69<;' 45?:5=C5:' &:' :-' <' 9&"A5 6<:' :-' <65B J ' 9<& -9:' 4<' 4&AD 4<' 45&9 B5:&>"' A<""-' 45 45 4<B "5& 459 45<9 ' "-9 A-8"A&=' -' :55"' 49-8>4' & i' 45&9 B5:&>"! ' :< ! B57 ' 45?' i 7' <'%855"' &"' 6-' 655D:' -' 4<C5 9<"A5 98=5B! &"' -89 "<?5 J9-8>4 ' &" -' 45 7&5=B F+!+++' ?5"' -' &"B55B J8 ' < ' 45&9 B5C- &-" ' "B A4<: &:5 6-'B95<?&">'7--=:! 64-'6595 ' ;9< ' -B 4< ' J5 <==' ' B-' "-' :5 ' -"' J ' <"- 459 9&"A5! <"B 6595 4&"D' & ' 6&=' J5 9&"A5:' A-"W8595B "-':55D&">' 45&9-6"' <BC<"A5?5" !K J ' 45&9 :8JR5A :' <95 9<95=R&E -7 =-">' 64<' :4-8=B "-' <' &">'-7 9<"A5 B-' A-" &"8<"A5 -B B575"B -8 * J5 <><&": ' ?5"' 64-' A=<&?' ;95A5B5"A5' "-' -89:5=7 <"' 5L<?;=5' -7 4&: -7 45 -8:5 -7 #<=-&:! <"B ;95 5"B ;9&-9 B5:A5" '79-?' 4<9=5?<>"5! <"B -' A-=-89 45&9 B-&">:' A<=' 45?:5=C5:' <D5' 8;' -89 D&">=' :;&9& ! <"B A4<?;&-":' -& 45 7<& 4! <"B >&9B< ' -8 <:' =5::' B5C-8 ' 4<"' 45?:5=C5:' -8 :4-8=B A4--:5 9< 459 -' 9&:D 4&:' 6<D5! 7-9 45 =-C5 -7 -B -8 =&75' &"' J< =5 4<"' 5"B895 45 :4<?5' 4<C5 :=5;' -8 &"8<"A5 -B B575"B -8 * J5 <8>4 ' 45?' -' D"-6' 45&9 4<C5 :<?' -' >&C5 45 :=<A5: ' 4-' <"B 64< ' <95 45:5 ?5"' 4<' <95 :-' 4<9B ' <:' -' >&C5 45 _ =44 ' '(3 ' (<' *M3M!

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(<

: - 9 7 - 9 45 5" 59 ; 9& : 5 - 7 ">=<"B @H J8 B&77595"A5: - 7 - ; &"&- " 4<B ?5<"64&=5 : ; 98"> 8 ; &" 45 -==5>5 - 7 <9B&"<=:! 64&A4 ; 95C5" 5B 4&: &==$6&== 79 - ? <D&"> : 4<; 5 45 A - 8=B " - <>955 &" 45 ; 59: - " 64 - 6<: - <D5 =&I<J5 4@: ; =<A5 - ?5 6595 7 - 9 (<& 8<9 " : - ?5 6595 7 - 9 <?5: " : - ?5 : 5A95 = ; 594<; : 7 - 9 4&=&; " <"B <><&" - "5 ; <9 6&: 45B - : 55 4595: 5L &">8&: 45B 7&9: &" 9<"A5 " - 459: 6 - 8=B : <C5 9<"A5 < 45 5L ; 5": 5 - 7 & : "5&>4J - 89:! <"B <B4595B - 45 - =B ; =<" - 7 : 5"B&"> 8&: 5 - A - =<"B H

8 45: 5 8"A59 <&" &5: A - 8=B " - EJ5 - 7 =- ">A - " &"8S <"A5! <"B 45 ; 9<A &A<= B<">59 6<: J5A - ?&"> ? - 95 <"B ? - 95 &? ?&"5" <9?<@: <9? 6<: J57 - 95 " S 659 ; J9&B>5 49 - 6" - C59 45 9&C59! 64&A4 B5: ; 59< 5 < 5? ; : 4<B J55" ?<B5 &" C<&" - J95<D! A8 - 77 45 A& 79 - ? : 8 ; ; =&5: <?&"5 6<: B - &"> & : 6 - 9D! <"B 45 : 8995"B59 4<B J5A - ?5 <W85: &- " - 7 655D:! - 9 < J5: - 7 ? - " 4: 45 7<== - 7 " 659 ; 6<: 5L ; 5A 5B - J5 45 : &>"<= 7 - 9 <>5"59<= : 8J?&: : &- " - 7 45 9 - C&"A5:! <"B <9?< 6 - 8=B 45" J5 7955 - <A 6& 4 8&: 5! 5& 459 &" 9<"A5 - 9 <><&" : 45 %855" - 7 ">=<"B 45 %855"$? - 459 4<B B - "5 459 6 - 9D < 4<=- ": 45 4<B ; 9 - ?&: 5B &" 45 &">@: "<?5 4< 4595: : 4 - 8=B " - =- ">59 J5 - =59< 5B _ : &L ? - " 4: ?&>4 J5 <== - 65B - 45 &"> - 7 <C<995 <"B 45 8>85" - : - ?<D5 45&9 ; 5<A5 <"B : 8995"B59 45&9 - 6": _ J8 &7 45 4<B " - A - ? ; =&5B < 45 5"B - 7 4< &?5! 45 6595 - J5 B5A=<95B ; 8J=&A 5"5?&5: 45 &">! <7 59 < 7<&" 95:&: <"A5! A - "7&9?5B 4&: ? - 459@: 5"><>5?5" : 5 6<: 599&7&5B J 45 495< - 7 5LA - ? ?8"&A< &- "! <"B 45 B95<B - 7 J5&"> B5S ; - :5B

Q 5 4< 5B 45 8&:5:!@ &9 B6<9B <77 - 9B 95 ; 5< 5B! @ 6& 4 <4< 95B 64&A4 6 - 8=B "5C59 J5 W85"A45B ' @ 4595

6595 4-:5<J-8 4&?64-7-95:<6 45 9<>5B -7 =-&:'
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(<" 795:4 -8"A&= =<678== A<==5B 45 5AA=5:&<:&A<=
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(B89&"> 45 5L&: 5"A5 -7 45 :A4&:? 9<"A5 & :5=7
(4<B "- 5 95A->"&:5B 45 -8"A&= -7 95" !"-9 4<B
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(4&?:5=7! P= <=<678= -8"A&=!>5"59<= -9 "<&-"<=! 4<B
(B5A&B5B -" 45 ;-&" : 4< 6595 B&:;8 5B 7 A&C&=
(6<9 6<: J5>8" <><&"! 45 &"C& 5B 45 6-9=B -6& "5::
(4< 45 7<8= B&B " - 95: 6& 4 4&? -: <C5 45
(:;&==&"> -7 95"A4 J=--B 45 6<: 95<B -9 45
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(-6-! 5" -5"! -9 65" -65" ! 645"5C59<"B
(64595C59 45 &">6-8=B J5 ;=5<:5B -;59?& @H
-6 6<: 45 &?5 7-9 =&I<J5 4 -78=7&= 45 ;9-?&:5:

(5 + .*$(. > & . *3 /." <C<& 5 "A=-:5B J <77-9B -
8"5 &I$.. _ =44 '(3 <=:&">4<?! 8= &$8 _ =44
K 5A=<9<&-" -7 45 &"> -7 :!)

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8=

64&A4 :45 4<B ?<B5 49-8>4 4<?;59"-6"5 H>89 6<:&" -"B-" -=5<9" 459 95:--=8 &-" 45 8>85"- =5<B59:! 895""5! 8 =5::&:! -"BH! <== ;95::5B 459 (B5 =<&9C<8L 69- 5 4< 45&9 A<8:5 6<: 459:" 4< -B575"B 45?6<: -B575"B 459:5=7! <"B 4< &" 95:;5A -7 45 A-??-" &" 595: :45 6<: J-8"B -:4<95 45 J89B5"! Q<"B <D5 49&: <"B 4&: ?5?J59: 79-? 45 Q A9-:: -:<C5 459:5=7 @H

=&I<J5 4 B&B" - 95W8&95 -J5 -=B <== 4&:! <"B :45 6<: 65== <6<95 -7 45 ?59& : -7 45 &"> -7 <C<995 45 D"56 4< 45 9&"A5 -7 9<">5 J5&"> B5<B :45 4<B "-9859 79&5"B &" 89-;5" J8 :45 D"56 <=:-! 4< 4<C&"> =<8"A45B 4&?:5=7 &" -45 :98>>=5! 45 A-8=B "- J5 A-"W8595B &"<:&">=5 :5<:-"! <"B :45 A-8=B <77-9B -<D5 &?5 -A-":&B59 45 4<B ;9-?&:5B &"B55B J8 >-::<?59 6<: "- =&>4 59 4<" 45 495<B: -7 45 -J=&S >< &-": 64&A4 J-8"B 459 -: 98>>=&"> 9-5: <" : 45 6<:5" <">=5B <=:-! <:6&== J5 :55"" &" 45 "5L A4<;59! 6& 4 5"><>5?5" :" &" -64&A4 :45 4<B 5" 595B 6& 4 45 -6 -8" 9&5:! <"B 6<: 5W8<== 5"B5<C-89&"> -5C<B5 R 45 78=7&=?5" -7 45? 45 6<: < &::85 6& 4 459 64--5 -8"A&=! -7 <== ;<9 &5: <"B <== :4<B5: -7 -;&"&-" 7 59 459 -=B ?<""59! :45 6<: Q 9578:&"> -5" 59 &" - Q 45 <A &-" - 4596&:5 4<" 8"B594<"B'@ <"B 5C59 -"5 -7 459 (&"&: 59: Q A-"A8995B &" -;&"&-" 4< & 6<: < Q B&:4--89<J=5 <"B B<">59-8: A-89:5 7-9 459! <"B 4< Q & 6<: &?;-::&J=5 :45 :4-8=B =-"> : <"B 8"=5: :45 Q <A 5B -;5"= <"B 9-8"B= @H

-":A&-8: 4< :45 6<: 69-">! 5 8"<J=5 -<A 8;9&>4 = ! :45 W8<995==5B 6& 4 5C59 4&"> 4< 6<: ;9-;-:5B -459 459 -6"<A :45 4<B J9-8>4 H>89 -"><"B 45" 5C59 ?&"8 5 =-: A-: <

K (B5 =<&9C<8L -<=:&">4<?! K <=:&">4<?: -<77-9B! 8= 8"5 *$.. _ (& . .$ 8> _

?<"@:' =&75!' :45' D5; ' 4&?' 6-' ?-" 4:' 6<& &">' J57-95' :45' A-8=B' B5 59?&"5' 64<' -' B-' 59' B5=&J59< &-":' 95:8= 5B' <' =<: '&"' <"' -& 59' -' =5"B' 45' &">' -7' <C<995' .M!+++j _ ' <' :&L 55" 4' ;<9 ' -7' 64<' :45' 4<B' 6<: 5B' -"' =5"^-" _ ' -' :<C5' 9<"A5' 79-?' 459' -6"' B5<B=&5: ' 5"5? !' <"B' 5C5"' 459' =-<"' :45' ?<B5' A-"B& &-"<' -"' 45' R-&" $<A &-"' -7' E 5"?<9D' <"B' 45' 59?<"' < 5: ' ' 6<:' <' 7& ' :5W85=' -' 45' <; ;9-;9&< &-"' -7' 45' R565=: ' @' ' -=B' 459' (<R5: ' Q 79<"D= !@ `>89' 69-5' -' <=:&">4<?!' Q ' 4<B' 9< 459' @' :45' =5" ' 8:' "-4&">!' <"B' ' 5==' -8' 45' :<?5' ' 6&==' @ 95A5&C5' "-4&">' 79-?' 459' -"' 45:5' A-"B& &-": ' 7 59' @ 459' ?5::<>5' -' 45' &">' -7' <C<995' 49-8>4' (@ 4<?;59"-6"5!' & ' &:' "-' &?5' -' 95<' 4&?' 48: ' ' @ 6-8=B' & ' 4<B' A-: ' ?5' 5"' 4-8:<WB' 79<"D:' 4< $*' 4<B' @ "-' A-?5' 4& 459' <' 4&:' &?5!' -9' =5B' 4&:' (<R5: ' -' @ 4-;5' 7-9' 45=;' 79-?' -8 @H

&"A5' 45' =-<"' A-8=B' "-' J5' <AA5; 5B!' :45' A8 ' & ' B-6"' -' 4<=7' 45' ><C5' `>89' 45' ?8"&7&A5" ' ;95:5" ' -7' *.!+++j ' <"B' =5 ' 4&?' >-_ >-' &"' :5<9A4' -7' ?-95' 5775A &C5' 45=;' 79-?' 45' 9&"A5:' 9-5: <" :' -7' -459' A-8" 9&5:' ' <"B' 75<9&">' -"= ' 4<' J5&">' :5" ' <6< ' <7 59' < 6-' ?-" 4:@ :8& ' 5?; $4<"B5B!' @ 459' (<R5: @:' 5L<?;=5! @ :45' J5&">' 7&9: ' &"' 9<"D' <"B' 4-"-89' <"B' ;-659!@ 6-8=B' "-' 5"A-89<>5' 45&9' =&J59<=& H' E E

4<9;' ;9<A &A5' =&D5' 4&:' ?&>4 ' J5' C59 ' A=5C59!' J8 ' & ' 6<:' "-' <=6< :' :<75' <C<995@:' <; ;5<=' 6<:' 95A5&C5B' 6& 4' ?-95' 7<C-89' 4<"' 45' 7<"< &A:' =--D5B' 7-9' 45' >95< ' ?&BB=5' ;<9 ' &"' 9<"A5' 6<:' &"A=&"5B' -' &" 59; -:5' J5 655"' 45' 5<>85' <"B' 45&9' ;95 " -' &": &: ' -"' :-?5' D&"B' -7' A-?;&E-?&:5!' <"B' =5<C5' 8&:5!' <:' < A-?;5":< &-"! -' 6-9D' 4&:' 6&==' -"' ">=<"B #&==59- @:' ;9-;-:<=:' -

K `>89' -' <=:&">4<?!' 8= ' I$' ' ' <=:&">4<?' -' =<!_ ' <77-9B!' 8= ' . .$ 8>' * _

K `>89' -' <=:&">4<?!' 8= ' 2$

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(5"B-I< J5><" - ;<::& " - :4<;5   : ; -7 <=:&">$
4<?@: :5" 4&? 6-9B &" 8>8: 4< 4595 6-8=B J5 <"
&"C<:&-" J57-95 45 A=-:5 -7 45 6&" 59 8&:5 6<:
>-&"> - A- =<"B ;<&" 6-8=B ?<D5 < B&C59:&-4 &"
95=<"B 5C&==5! 59A ! 98"B5=! <>5 ! 49->?-9S
-"! 6595 - =<"B < B&77595" ;-&" : 8;-" 45 A-<:
(<8C&::&595 4<B =57 -"B-" < =<: &: :8AA5::-9!
(B5 &@ 8J5:;&"5! Q 4<B J55" 79<?5B - 45 ;89;-:5'@
<"B @ 45 <;&: :!@ -"A5 ?-95 &" 45<9 <"B :;&9& :! @ 6595
@ &" 4-;5 - J5 &" ">=<"B J57-95 49&: ?<: H H
45 :&>"<= 6<: - J5 45 A-":5" -7 45 &"> -7
<C<995 - A-"B& &-": 64&A4 =&I<J5 4@: B5:59 &-"
: 5?5B =&D5= - 7-9A5 8;-" 4&? <:&?&9! -77595B -
>- - 4&: 45=;&7 :45 6-8=B J5<9 ;<9 -7 45 A-: ! J8
:45 6-8=B "- 45 @ 6<:&"B&:;-:5B - &5=B - <A-"$
@ 9&J8 &-" 7-9 45 =5C &" 59?<" ! <"B 6-8=B J5 A-"$
@ 5" 4< < =<?5 ;5<A5 :4-8=B J5 :4877=5B 8;&" 9<"A5
@ 9< 459 4<" J5 ;8 - <" :8A4 A4<9>5: @ H
45 5L5A8 &-" -7 45 ;=<"! 4-65C59!&?;=&5B 45 A-S
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<" &"7-9?<" 64- 6<: -9 ;9-75::5B - J5 &" 45 :5A95 !O
J <"- 459 -7 4-:5 :8BB5" @ <= 59< &-": @ 4595! -7 64&A4
45 -8"> &"> 6<:7-9 :- ?<" 5<9: 45 7-- J<==
5 >- J<AD - 45 5?J<:: -7 45 (<: 59 -7 9<
<"B 45 95< &5: 6& 4 45 %855" -7 A- : <"B 6& 4
<?5:
(<9 8<9 4<B -775"B5B 45 -;5 J A-":5" &"> -
A-?5 - 59?: 6& 4 =&I<J5 4 45 4<B A-??& 5B
459:5=7! 5 459 =&J59 :55?5B <: 7<9 <6< <: J57-95
59 79&5"B: <J9-<B -=B 459 - =--D 7-9 "- 4&"> 79-?
;<&" <: =-"> <: 459 :-" 6<: < 9- 5: <" " <"B 5C5"

K (5"B-9:5B @ 45 5" 59R&9&:5 -7 ,$*, _ P=44 :!)
">=<"B! 8> "! *M3M@_ O 5A95 <BC59&:5?5" - <=$
B '(3 :&">4<?! 5A *2!_ =44 :!)
K <=:&">4<? - <77-9B! 5A

(5"B-I<! 64- 4<B -"A5 4-8>4 4< 45 9-<B - 45 A-"W85: -7 =<"B59: =< 49-8>4 ">=<"B! 4<B "-6 <= 595B 4&: ?&"B! <"B 4<B <BC&:5B 4&=&; - =5<C5 ">=<"B <=-"5 &== <9?< 4<B 7&"&:45B 4&: 6-9D H

<9?< 4<B &"B55B J55"" <"L&-8: 4< 45 %855"" -7 A- : :4-8=B 5:AY;5! <"B 4<B -77595B - ;9-C&B5 45 "5A5::<9 ?-"5 <>5 ! 65"! <9:-":!<"B - 459:-7 45 -8">" ">=&:4 <4-=&A:! 4<B < 48"B95B :A45?5: J 64&A4! &7:45 A-8=B J8 7&"B 459 6< -8 :&B5 8 J89 6<==: <" B<9D 6&" 59 5C5"&">! 45 6-8=B :"<A4 459 8;<"B :655; 459 B-6"" - 45 :5< @ -8 -89:5=7 @ D"- #!@ 69- 5 -"5 -7 45?- 459! @ 64< 6<" 45 =<AD @ -7 -89 =&J59 4<: J9-8>4 7-9 4 - -89 -6"" :8JR5A : @ <"B <== 49&: 5"B-? 45 %8W;"" -7 ">=<"B 6&== @ "5C59 B5=&C59 -8 J8 J 75<9 -9 7-9A5! <"B :55 :?<== @ <; ;5<9<"A5 5 4< :45 6&== J5 A-": 9<&"5B 4595 @ <95 J8 756 5L<?;=5: -7 &">: 4< A<?5 - A9-6":" @ -8 -7 ;9&:-":! <"B ?<" J5&"> < =&J59 -8 -7 45&9 @ A-8" 9&5: 95A-C595B 45&9 -6" @H

756 5<9: J57-95! 45&@5 6-8=B 4<C5 J55"" "- B&77&S A8= <=7 4956:J89 @: 4-8:54-=B 6595 45"" &"" 459 &" 595: 8 459 B95<?: < 4< &?5 6595 -7 8&:5 -9 5""-L! 6& 4:-?5>< 9<&"" -7A<C<=&59: <; ;5<=&">< 45 >< 5: -7 4577&5=B <"B J5<9&">459 - -"B-"" <?&B: 45 5" 48:&<:?- 7 <4-=&A ">=<"B! - <D5 ;-::5::&-"" -7 45 49-"5 45 4<B 45"" 75= 459:5=7 J5 59 -77 64595 :45 6<: 4<"" &"" A- =<"B -9 <J9-<B! <"B 4<B "- B5:&95 - >- 8 45 A4<"A5 4<B ;<::5B <"B A-8=B "- J5 95S A<==5B &9 <=;4 <B=59@: :59C<" : 6595 : 9<">59:! <"B 4595 6<: "- 5>95: 49-8>4 45 ;-: 59": -7 8 J89 =&I<J5 4 75B 459 6& 4 6-9B:! <"B &"" <" &A&;<&-"" 4<

4<9=5: <>5 - 45 %855"" -7 *M3M = 44 ( ) ! / - + A- :! <" 1$*1!*M3M &7 ">=5$ Ö 8>4 65"" - 45$%855"" -7 45=B - 45 %855"" -7 A- :! (<9A4 *M! A- :! <" *F$.F _ = 44 :!)

:45 ?&>4 9 :-?5 4&"> B5:;59< 5! :45 6<: >8<9B5B 6& 4 5:;5A&<= : 9&A "5:: <B=59! -" 4&: -6" 95:;-":&S

*M3M (<9A4

J&=& ! <==-65B 459 "-6 <"B 45" -9&B5 6& 4 4&?
4<6D&"> &" 45 ?5<B-6:! (<;<: &?5 64&A4 :45 4<B
:&">8=<9 B5=&>4 &" '(7&7 < 5"B<" :! 6& 4 ;&: -=:!
7-==-65B <=6< :-" 4-9:5J<AD" J8 <B=59 6<: 95;9&S
?<"B5B 7-9 A<95=5::"5::' <"B J<95= 5LA8:5B 4&?:5=7 J
<::89&"> =&I<J5 4 4< (&7<" B<">59 4<B J55"-&7595B
-9 <;;<95" B-8J :8:;5A 5B! 45 %855"-7 A-:
J-B :4-8=B 7&9: 4<C5 <: 5B -7 45 ><== @H

9-?B< -B< 459 4-;5:>956 7<&" 59! <:79-?B<
-B< & J5A<?5 ?-95 A=5<9 4< <?5:4<B :-=B 4&?S
:5=7 -459 5"5? >&"45 4<B 95;8B&< 5B 45
<::-A&< &-" -64&A4:45 4<B ;95 5"B5B 4< 45 4<B A-"S
:5" 5B -:8A4 4&">5L&: 5B! 45:<&B! "-95C59:4-8=B
5L&: " 95 89"! 45 <9= -7 ">8:<"B 4&: A-?S
;<"&-":4<B J55"95?-C5B 79-? 56A<: =5 -L7-9B!
64595 45 6-8=B 4<C5 =5::A<8:5 -75<9 45?'<"B 45
95 89"-7 45 (<: 59 -7 9< 6<:-"= 6<& 5B 7-9! 7-9
45 R&5"&-" -J5 :< &:7<A -9&= <99<">5BK 99<"!&"B55B
6<:"-:<&:7&5BK 99<"!<"L&-8: -:5A895 4&:7-975&S
895:! : &== B5?<"B5B 4< J- 4 ">8:<"B 45 <?&=S
-":4-8=B J5 B9&C5"-8 -7 ">=<"B' <"B &9 56&:
5==5"B5"! 45R8: &A5A=59D! 6<::5" -"B-"-89>5
& 8 45 (<: 59 -7 9< 4<B><&"5B<"&"7=85"A5 -7
4&: -6"-C59 <?5:! <"B 99<" 6<:"-= -">59 <==$
;-65978= 99<"@:&" 595: :6595"- A-=<"B@: 5
6<: 45 A95< 895 -7 45 &">@: 7<C-89 45 95;95:5" 5B
"-;9&"A&;=5! <"B 4<B "-;-=& &A<=;-:& &-" 5==5"B5"!
645" 45 A<?5 8;! <A 5B 6& 4 9< !<"B 45 ">=&:4
?&"&: 59:6595:<&:7&5B 4<64< 5C59B<">59: 495< 5"5B
45 %855"! A-=<"B 6<:7-9 45 ;95:5" :5A895

? .5 $ &' . *3 /." .$%/ .@ !$*' ! <=44 ' &$'
+ '

5<9' -7' A- =<"B' 6<:' 45' =5C59' -"' 64&A4' (<9' 8<9' = $
4<B'A-8" 5B' -' 6-9D' 8;-"' =&I<J5 4!'<"B'&' 6<:' :=&;;&">'
-8' -7' 459' 4<"B:' =&I<J5 4':5"' 459' 45' =5 59' &"' *M3M
64&A4' <?5:' 95;8B&< 5B' 45' <::-A&< &-"' 45' A89:5B' .'3
45' (<: 59' -7' 9<'*' :45'A89:5B'459' :-"'*' :45':6-95' 4<'
:--"59' 4<"' 45' :4-8=B' 5"R-' 459' 9&>4' &"' ">=<"B!'<:'
45'4<B' <=95<B'8:89;5B' 459' <A 8<=' A9-6"!' :45'6-8=B'B&:S
&"459&' 4&?' <:' <'7<=:5!' 95<A459-8:!'<"B'8""< 89<=' A4&=B!'
<"B' 6-8=B' J5W85< 4' 459' A=<&?:!' 64< 5C59' 45' ?&>4'
45!' -' 45' 6-9:'5"5?' 4<'45' 4<B @H

45' B5:&95B' 4<' 5==5"B5"' ?&>4'AZ?5' -' 459' -' 8 $'
J89 !'<"B' A<99' 459' A-?;=<&" :' -' A-=<"B' (' P" &5'
(' ?' 4<"B:!(' :45' A9&5B' -' =&I<J5 4!'(' <"B'=5' ?5' B5<='
(' 6& 4' 45:5'= &">';9<A &:59:' -'"-' 5?;' ?' :-"' -'
(' J9&">' <' ?- 459@:' ?<=&:-"' 8;-"' @4&?' <' ;=<&"=' '
(' 645 459' -8' 4-=B' 4&?' -9' ?5' -' J5'=<678=' -C595&>"' -7'
(' A-=<"B!' <"B' 645 459' -8' 6&==' 95<'$6&4'?5'-9'"-'
(' 5' ?5' >-' 5' ?5' 95 &95' 79-?' 4&:'&:=<"B' -' :-?5'
(' :-=& 8B5' 64595' ' ?<' ;95;<95' ?' :-8=' -' B&5' 9<"'
Q 4&:' <"B' ' 6&==' :&>"' <6<' 5C59' 9&>4' -' 64&A4' ' -9'
(' ?&"5' A<"' A=<&?!' 5& 459' "-6' -9' 4595<7 59' -6' 4<'
Q ?' :-"' 4<:' B5A5&C5B' ?5!' A<95' "-' ?-95' 7-9' <?$'
(' J& &-"' < 459' 6-8=B' 4<C5' 4&?' ?<B5' <"' 5L<?;=5'
(' -' <==;-: 59& -7' 9<"" !'&?;&5 !'<"B' &">9<&8B5
(' &:' :8JR5A :' ?<' B5<=' 6& 4' 4&?' <:' 45' 4<:' J55"' <B$'
(' C&:5B' -' B5<=' 6& 4' ?5'*' -9' 45' :9<">59' ?<' &"C<B5'
(' <"B' :;-&=' 4&?' 7'5<9 4=' 7-9A5' J5' -"' 4&:' :&B5!' 6&==

K'E' @&"C-W859<'=<' ?<=`B&A &-"' B5' <C-&&(B5'" -'5"' A5'?-"B5!'5';=8: -:'
&58' :89' =8 !'5'=8' B-""59<' "-"' 5"' 5=' A<:' B-""59< $R5' ?-"' B9-&'
:58=5?5" '=<' ?&5""5' <C5A' 5==5:' A&9S W85=' W8&:-&'<8';=8:' >9<"B'5""5? 5'
A-": <"A5:' W8E&=:' =8' -8A459-"'<8' W8@&=' < 5!' <C<"' W85' R<?<&:' &=' 5"'
C&7!' ?<&:' <8::' =5' B5:59& 59< R5' 5' R-8&::5';<9'8:89;<&-"'A-?7 5'&='7<&A'
;9&C59<' A-?7 5' 7&=:' B5:"<89`!' &"S B5' ?<' A-89-""5@<' + (' *6'
>9<' 5' ;597&B5' 5' B`:-J`&::<"' !' B5' 4**$'$*'='+L$! !M' (<9A4'*.!*M3M$
-8 5'=<'>9<"B589' W8@&=' ;58='R<?<&: 3 * --'C-='C&

J55"' ?89B595B' 5' 789"&:45B' < 5L ' -"' 64&A4' :45' B5S A=<&?5B' 6& 4' 459' 8:8<=' 5=-W85"A5' -"' 45' B<">59:' -' 64&A4' :45' 6<:' 459:5=7' 5L;-:5B H

&9' <=;4' <B=59@:' <;;-&" ?5" ' 4<B' J55"' ;9-C&:&-"<=' ?595= ' 5';=5<B5B'<>5'<"B'&"7&9?& !' -'5:A<;5'<:'::--"' <:' ;-::&J=5'79-?' 45'8">9<A&-8:'-77&A5!'<"B'<"-459'>8<9S B&<"' 4<B' -' J5'7-8"B'7-9'459' -9B' ' -4"' -7' =5:-5' 6<:' 7&9:' 4-8>4' -7!' <"B' <:' -4"@:' J9-459:' <"B' :&:59:' 6595' <4-=&A:!'4-;5:' 6595'7-&E?5B' 4<' 45' ?&>4' 789 459'459'5:A<;5' 5!' --!'4-65C59!'B<95B' =&I<J5 4@:' <">59!'<"B'9578:5B!H'<"B' 45'A4-&A5'8=&?<5='75=='-"' &9' ?<:' <8=5!'64-'4<B' ;95A5B5B' <77-9B'<:' ?J<:S :<B-9E<' <9&:_<B&:&">8&:45B'<B4595"' -7' 45':5A' 64&A4' 45'%855"'-7' A-:'<775A 5B':-'?8A4' -'4<5'<"B' 75<9' <8=5' A<?5'B-6"' -' 95=&5C5' <B=59' &"' 45' ?&BB=5' -7' ;9&=' -6&4:<"B&">' 4&:' 7-9J&BB&">' A955B!'(<&' 8<9' 9&5B' 459'5"A4<" ?5":' 8;-"' 4&?' 5'6<:' -C59"-9' -7' 59:5!'<"B'J' 45'<BC&A5'-7' (-9><"!'64-'69-5' -'459'79-?' 45' <:&=5!'<"B'64-:5' =5 5&@:' 6595':?8>>=5B'&" -' g8 J89 !O':45'4&" 5B' 4<'&7' :45'5C59'A<?5' -' 45' 9-6"'Q'45' ?&>4' 4<C5'<"-459' Q ?<""59' -7' <::89<"A5' -7' 4<' &:=<"B' 4<"' 5C59' 6<:' Q'>&C5"' -'<"' ">=&:4':8JR5A @' <8=5'<'-"A5' J=&>4 5B

;5<=9&">'-7' 45' 89&<"i!'6&4' <':A-9" 8=;=<'8;-"' 45'6-9B:!':45' :<&B':45'D"56'65==$'6&4'45&9':;5$!' A&-":';=5<:'-7'A-":A&5"A5!'/-8:'=5:S W85==5:'&=:'A<A45"'8'B+'+'8'B+' B5'=589'&" 5" &-"!'<':^<C-&9'=@<::58&59' =589'?-"<9A4&5'B5'=@<BC5"&9';<9'=<' ;9`:5" 5'B5:98A&-"'B5'C-:95':<">' 5'=5>&&?5':8AA5::&-"@

K'7'-9B' '-4"'4<B'4<B'A4<9>5' -7' -89' (<R5:' 4&">:' ?&>4'4<C5' J55"'B-"57-9' -89'5:A<;5!'J8'"-6' 6&4'45'A4<">5'65'<95'<'-89'6&:@ 5"B@<' '8'R'2$$*'$' + ('*6 43*$' 8='*3$.3' 5A&;459' =44' &' ' ! "' ' ' Q 7':45' 4<B'A-?5'-'?'J9-459@:!' ' -4"@:' 4-8:5!' -8':4-8=B'4<C5'4<B'78==' "-&A5'64<'-'B-@_ ')2'8+(2!?D' 6*)'$*'$'5!$3 '*6' !'' =44' :!)' ' -4"' ;9-J<J='D"56'45' ;95::895'64&A4'6-8=B'J5'=<&B'8;-"' 4&?!'<"B'B5A=&"5B'-'5L;-:5'4&?:5=7' -'&!'Q9<459'-7759&">'&"'<':-9'&?S ;9&:-"?5"@_R+7 8 2'$*' '8!(2D' '.'<"'1$*1'=44':!)

K'(-9><"' -' 45'%855"'-7' A-:!' (<9A4'F+$;9&=N_=44':!)

<" 4-;5: 64&A4 :45 ?&>4 4<C5 7-9?5B -7 A-998; &"> 4&? 5 8"B59: --B 459 ;5975A = !<"B 95;=&5B 4< & 6<: <: 65== - : ;5<D ;=<&"= 45 6<: ;=<A5B &" 4&: A4<9>5! <"B (45 6-8=B "- J5 B&C59 5B 79- ?4&: B8 (J 4-;5 -7><&"! 75<9 -7 =-::! -9 <" ;9&C< 5 95:;5A (64< :-5C59'@H 45 6-8=B :4-6 459 <== 95:;5A <"B A-89 5: ! J8 45 ?8: -J5 45 -9B59: -7 4&: -C5$ 95&>"

(45 A<=?J5>&""&">@4<B 45957-95(<9-8>4;9-A55B$ &"> 45 A-<A4?<" 64- 5L59A&:5B 459 4-9:5:! 45 =<8"B95: 64- A<99&5B -8 45 A=- 45:!E 45 <=?-"59 64- B&: 9&J8 5B 459 A4<9& &5: &" 45 <BR-&"&"> C&==<>5_ <== 6595 5?;=- 5B -" 459 A-995:;-"B5"A5! <"B <== 4<B - J5 6< A45B! <"B :5<9A45B! <"B 6-99&5B -8" 9 >5"S =5?5" -7 < 4-=&A =5<"&">: (- 64-?45 %855" -7 (A- : 6<: 45 -"= :<&" 8;-" 5<9 4!@ 48"> <J-8 45 ;=<A5 (:55D&"> &" 5==&>5"A5 6& 4 459! 4-8>4&A-: 45? 45&9=&C5:!@H<"B 4&:! --!;9-C-D5BA-==&:&-" <"B <= 59S A< &-" 5 59: : -=5 &"! B5:;& 5 -7 <&&=5 @: A<95 J8 45 J9-8>4 :?<== A-?7-9 !<"B B&B" - ?<D5 45=<B @: 5?;59 ?-95 B-A&=5! -9 4&: <:D =5::B&77&A8= a95 =< 85&"B55B -=B 459 -7 45 5<>85! -7 45 A-?J&"<&-" -7 45 < 4-=&A ;-659:! <"B 45 ;9-:;5A : -7 459 D&":S ?5" 8 45 9&8?;4 -7 45 A<8:5 6<: "-=-">59 - J5 45 9&8?;4 -7 45 %855" -7 A- : - :45! J8 45 695 A45B <?5: 64- 4<B J5 9< 5B 459! 6<: 45 7<C-89& 5 -7 45 -;5 <"B 45 -8:5 -7 -99<&"5! &7 -"= 45 A-8=B J5 95A-C595B - 45 7<& 4 8&:5! < 85:<&B! 4<B :5" - -7759 < ;=<A5 &" 45 -"75B59<A - 45 J- 64-:5 ;59:&: 5"A5 &" 4595: 4<B J55" 45 5LA8:5 7-9 45 <;< 4 -6<9B: 459:5=7! <"B :45 65== D"56 4-6

* <8=5 - =&I<J5 4! ;9&= *N$ K (-9><" - 45 %855" -7 A- :!
FN 8= *+$.+ _ =44 :!)

=&>4 = ' <?5:' 6-8=B' 89"' 64595C59' &" 595: ' A=5<9= '
;-&" 5B ' -9' 459' 4595' 6<:' -' J5' "-'7-9>&C5"5::' 45'
=5 59:' 64&A4' :45' 4<B' 6& 5"' -' (<8C&::&H95' A-":5" &">'
-' 45' 95< '4<B' :A<"B<=&:5B' 45' -;5'<"B' 4&=&;!' 95<B '
<:' 45 ' J- 4' 6595' -' A< A4' < ' <" ' A<8:5' -7' -775"A5' 6& 4'
459 ' <' 85' :<&B' 45' 4<B' -=B' 45?' 4< ' :45' 4<B' J55"'
-"= 'B&::5?J=&">!' J8 ' & ' 4<B' ?<B5' "-' B&77595"A5 ' 7':45'
;=< 5B' 7<=:5' 6& 4' =&I<J5 4!' 45 ' 9578:5B' -' 98: ' 459'
45?:5=C5:' <' 85' <BC&:5B' 459!' &7' :45' 6&:45B' -'
95A-C59' 45&9' A-"7&B5"A5!' -' B5?<"B' &": <" ' <B?&::&-"'
&" -' 45' 5<>85!'<"B' -' 49-6'459:5=7' 6& 4-8 '95:59C5'-"'
45' 8D5' -7' 8&:5!' (7!(45' 69-5!' (-89' (<R5: '
(A-" &"85' <:' -8' 4<C5' J5>8"!' 4595' &:' "- ' <' ?<"'=&C&">'
(64-' A<"' <&B' -8 ' 5=&5C5' 4-:5' 64-' 9H5L ' -' -B' 4<C5'
("-' -JR5A ' J8 ' -89'>--B ' -8=B' -' 5<C5"!' (<B<?!'
(4<' ' A-8=B!'4<C5' J8 ' 4955' 4-89:(:;55A4' 6& 4' -8!'<"B'
(4<' -8' 6-8=B' A-"B5:A5"B' -'=&: 5"' 64&=5' ' 6<:' ;=<&"'
(6& 4' -8 ' 57-95' <==' 4&">:' (<B<?!' 95A-"A&=5' -89$'
(:5=7' -' -B' <"B' &:' B&C&"5' (- 459!' <"B' 45' 9&"A5:'
(< 4-=&A!' <"B' 45"!' 6& 4' -B(:' >9<A5!' 4595' 6&==' J5' <'
(95?5B '7-8"B' 7-9' <== (H

"' 45' 5C5' -7' 45' 5L;5A 5B' 9&8?;4' -7' 45' < 4-=&A'
A<8:5!' & ' 6<:' <' :-95' 4&">' 7-9' 45' %855"' -7' A-:' -'
7&"B' 459' &" 5==&>5"A5' A8 ' -77!' J59' ?5<":' -7' 9&>4 &">'
459:5=7' <D5"' <6< !' <"B' -' J5' =57 ' 48:' -' B&>5: ' 459'
695 A45B"5:: ' (<" ' <' 7&59A5' A-?;=<&" ' :45' ;-895B'
-8 ' <><&": ' 45' ?&:59 ' -7' 459' <J-B5!' ?<" ' <"' 5" 95< '
-' J5' 95?-C5B' -' <' ;=<A5' -' 64&A4' <AA5::' 6-8=B' J5' =5::'
&?;-::&J=5 ' <' 85(:' A-??8"&A< &-"' ?8: ' 4<C5' J55"'
<=?-: ' 45' =<: ' 64&A4' :45' 95A5&C5B' 7-9' ?<" ' ?-" 4:!'
<"B' <8=5 (:' :D&==' < ' =<: ' : -;;5B' 45' A4<""5=:' J '
64&A4' 459' -6"' ;9&C< 5' =5 59:' 6595' A<99&5B' -8 ' C59

' <' 85' -' 45' %855"' -7' A-:!' (< ' 3$R3!' *M3M _ = 44 ' 24')! '
('

□ ' # '

- - - ((

*M3M

-"5' -7' 459' :59C<" :' /6<:'&"' =5<>85' -' B5A5&C5' 4&:' 6< A4S
78="5:: ' 5' B5:A9&J5B' 4&? :5=7' -' <=:&">4<?'<:'J56&=S
B595B' J ' 45' 95<A459 ' 6& 4' 64&A4' 45' 6<:' :899-8"B5B'
Q' <8@:' 95"A4' J8: ' 45<B'@ 5:;5A&<== ' H;59;=5L5BE' 4&? '
5' :-' =& =5' 98: 5B' 4&:' ;-659' -'$?< A4' :8A4' <' B&;=-S
?< &: ' 4<!' 45' B<95B' &&- ' :;5<D' -' <8 ' 4595'k 6<:'<'
';9&5: !' --!' B&:>8&:5B'&"' 45E4-;:54-=B!' 64-?' 45'4<B' B5$
' 5A 5B!' J8 'D"56'"- ' 64< -' B-EC" 4!' =&I<J5 4!' <:' 45'
:<&B!' Q:-' B<"B=5B' 45' < 4-=&A:@ 45' J<B5 4&&"!' <:' 45'
5L;5A 5B!' =5 ' 45' ;9&5: ' J5!' <"B' 45' 4<B' -"5' 9<& ;9' 45'
?-95' -' 6< A4' -C59 ' &==!J '95:--=8 5' ;59:5C59<"A5' 45'
B&B'4&:' 6-&@D!' <"B' B&B'& '5&75A 8<== ' " 5==&>5"A5'"5& 459'
65" ' "-9' A<?5' (<& ' 8<9 '<= 59"< 5= ' 9<C5B!' A89:5B!'
k 65;! <"B' 5" 95< 5B ' <8=5 ' 6<:' A-89 5-8:!' J8 '7&9?!'
<"B' A-8=B' J5' "5& 459' 79&>4 5"5B'!"-9' ?5= 5B' &" -' &9RB8=$'
'>5"A5 H' 45 ;9&5: ' 6<:' 6&"D5B' < !' <"B' ><C5!459'Q 45'
QA-":--=< &-":' -7' 95=&>&-" @ 45' /6<:' <==-65B' -' 6<==&!'
$9&B5!' -9' 48" !' J8 ' <=6< :'G:899-8"B5B' J ' <' >8<9B'" "-'
$ 9<">596<:';59?& 5B -!':55' 459!<"B' 5C59 4&">' 64&A4'
65" ' "-8 ' -7' 45' <: =5' ;<::5B' 49W8>4' <8=5 @:' 4<"B:'
59' 9--?:'=--D5B'&" -' 45' <9B ' ! 45' J5>>5B' 4<9B' 7-9'
<':8& 5' 64&A4' 7<A5B' 45' A-8" 9 !' J8 ' :45' 6<:' 9578:5B '
<8=5 ' D"56' 4<' :45'G?5<" 'G -!8:5' 45' 6&"B-6:' -'
5:A<;5"J !' -9!' < '=5<: !' -' ?<D5':&>"<=:'79-?' -' 79&5"B:
E -' 7-9' 45' ;95:5" '$95?<&"5B' (< ' 8<9 !' -'795 '
'459:5=7' &" -'& 45'B5:;59< &-"' G64&A4' ;9-C-D5B' 45' 7&"<=
EA< <: 9-;45

&(5<"64&=5' <?5:'<775A 5B!' -' J5' B5C- 5B' -! =&I<J5 4 '
5' :5" ' "-' <":659' -'$ 8&:5@:' -7759' -7' < ;=<A5'&"' 45'
5<>85 ' G 45' ' &">' -7' <C<995' '&"C& 5B'*4&?' &" -! 45'
9- 5: <" ' ==&<"A5 H ' "' 4&:' <"B' <==' 4&">:' 45' ;9-75::5B'
-' B5:&95' -' J5' >8&B5B$J ' Q4&:!>--B' :&: 59!@ B!6<9B

H 55' <8=5 @:'A-& 5:;-"B5"A5'6& 4' ' "' # ' ' $ % "!' ' "'
<=:&">4<?j(< !E 8"5!' 8= !'<"B' &# ' ' ' ' (' !') *' '
/. ' ' ' "' # ' ' ' * (' □ '
+ ' % !' !

- -"' 6<:' :5" ' -' (?' &"' ; &&=' -' <99<">5' =&5' 59 ? :' -7' 45' ">=-$ A- A ' 5<>85!' <"B' 45' %855"' Q 8"B59$ Q : <"B&">' 4< ' (:' 95C5"85:!' J ' 45' -C59$=&J59<=' : ;5"B$!Q &">' -&4&:' ? - 459' &"' 45' & ?5' -7' 459' > -C59" ?5" ' 6595' Q ?8A4' B& ?&"&:45B!$ B5A=<95B' 459:5=7' Q 6&==&">' -' J5: -6' Q 8; -"' 4& ?' 5<9= ' : - ?5' 95<: -"<J=5'; 9- ; -9 &-"' -7' ? -"5 @H 45' 4<B' ;9- ?&:5B' 45' (<: 59' -7' 9< ' &-' <P-6' @4& ?' M!---T' <' 5<9 ' 45"' 9< @:' J<AD' 6<:' 89"5B!' 4-6S 5C59!' :45' "< 89<== ' 4-8>4 ' & ' --' ?8A4' :45' 4<B' A8 ' B-6"' 45' :8 ?' :-' 7<9' 4< ' <=:&">4< ?' 75<95B' & ' 6-8=B' B-' ?-95' 4<9 ?' 4<"' >--B' -' ?5" &-"' & ' 45' <BC&:5B' -"!' 45957-95!' -' D55;' Q -' >5"59<=& &5:H' Q ;8 &">' Q 45 ?' &" 4-;5' 4< ' 459' =H <R5: ' 6-8=B' 4<C5' ;9&"A5= ' !Q A-":&B59< &-"' -7' 45' &">@:' "5A5::& &5:'K' :-?5 ("> 6-8=B' ;9-J<J=RRH 4<; ;5"' J57-95' =-&9>E' -' <=<9 ?' 59!' <"B' 45' 4-8>4 ' 45' 6-8=B' 45"' J5' J5 59' HJ=5' -' ;59:&&<B5' 459' -' D55;' -' 459' 5"><>5?5" :VH' '75 6' A-8;=`' -7' ">=&:4' J8AD$4-8"B:' 6595' <=:-' ;<9 ' -7' 45' : &;8=< 5B' ;9&A5' -7' <?5:@:' B5:59 &-"' -7' 4&:' ? - 459 ' 45 ' 4<B' J55"' 7-9S >- 5" ' <?5:' <:D5B' 7-9' 45?' &? ?5B&< `= !' <"B' -S -"!' -"' 4&:' <99&C<=' < 'R B&WJ89>4!' 6<:' -J=&>5B' -' ;95 5"B' 4< ' 45 ' 6595' -"' 45' 9-<B ' 45 ' 6595' :5" '7-9' &"' 4<: 5 Q 45' &">@:' ?&"B' B&B' :-' 98"' 8;-"' 45?!@ - -"' :<&B!' Q 4< ' 45&9' 6<" ' ?&>47' J955B' A-"A5& :' 7-9' 45' Q <BC59:5' ;<9 ' -' 6-9D' 8;-" @H 45' (<: 59' -7' 9< !' ! --!' 6<:' ;<9 &A8=<9' <J-8 ' 45' M!+++j ' 7' & ' 6<:' "- ' >9<" 5B!' 45' :<&B' Q 45' 6-8=B' <;;5<9' <' =&<9'' @ 99<"' 6<:' -"' 45' 6< A4' -' 95A-C59' 4&:' &"7=85"A5!' <"B' 6<" 5B' J8 ' ?< 59' -' 6-9D' 8;-" Q 7-9' 6<" ' -7' 45' 4-8"B:' 45' 6-8=B' Q 4<C5' ;59:8<B5B' 45' &">' 4< ' <=:' 6<:' J8 ' 6-9B: @H

K! ": 98A &-":' -' B6<9B' - -"!' F+$ 8"5' N _ = 44 ' :!)
;9&=' &EM3M _ = 44 ' 43*$8' ()
/ - -"/ -' <=:&">4<?!' (<
K <=:&">J<?' -' - -"!' (<' F*$' 8"5' $*' E 9< ' -' <=:&">4<?!'
.F$ 8"5' 1 _ = 44 ' :!) !:!) D< = 44 ' :!)
K - -"' -' <=:&">4<?!' (<

*M3:
(<

*M3M
8"5

4595 @6<: < ;=<" - >5 9&B -7 99<" &" A- A4 7<:4&-" 45 (<: 59 -7 9< J57-95 45 =57 -"B-" 4<B <99<">5B $6& 4 5&A5: 59 - D&== 4&? =&I<J5 4 4<B :8>S >5: 5B : - ?5 4&"> :4-9 -7 4&: 5L 95?& !<"B 9< 4<B ;9-?&:5B 4< Q 45 6-8=B 7-9J5<9 C&--=5"A5E 8"=5:: 4&: -6" =&75 6<: &" B<">59 8 45 : 5; 79-? ;=- &"> <::<::&"< &-" - 5L5A8 &"> & 6<: :4-9 <"B -7 5" "5A5:S :<9 Q 45&9 ;89;-:5 &: <= 595B < 459 (<R5: @: 95$ Q W85: - 7-9J5<9 - B5<= 6& 4 C&--=5"A5!@ 69- 5 - -"! Q"- 6& 4: <"B&"> 8;-" 45 =5<: -AA<:&-" 4< :4<== J5 Q-&7595B! 45 ?5<" - ?<D5 :4-9 6-9D 6& 4 4&? 45 Q4< 95B J-9"5 4&?&: : - >5"59<= <"B : - >95< 4< 45 A<"$ Q" - =-">J9--D 45 ;=<A5 45 4--=B : -"= 45 &">@: ;-659 Q :8;-9 :4&?!<"B 4< &: "- : - ?8A4 <: & 4< 4 J55" @ H 45 B&B "- J5=&5C5! - -"<BB5B &" <"- 459 =5 59! 4< 45 %855"@: -JR5A &-": 6595 :&"A595 J8 459 &" 59S 7595"A5 Q4<B J95B A-"A5& :&" 45&9 45<9 : @ Q <C&"> 459 Q 89" :59C5B! 45 ;5<A5 A-"A=8B5B!<"B 45 &">< ::895B!@ 45 4-8>4 :45 $6-8=B <: 8:8<= J5 &"B&77595" - 45 7< 5 -7 459 &": 98?5" : <?5: 6<: D"-6" - J5 95C5">5S 78=! <"B &7 99<" 6<: D&==5B J=--B ? &>4 J5 5L<A 5B 7-9 J=--B H

H - -" - <=:&">4<?! (< F*$ 8<5 *+ _ = 44 43*$8' ( )

O <=:&">4<?! -9 :-?5 :5A95 <9 64- 4<B 45 A<95 -7 4&: A-995:;-"S B5"A5!59<:5B 45 ;<::<>5:&" - -"@: =5 59: 64&A4 95759 - 45 ;9-;-:5B ?89B59! J8 45 &"D 6& 4 64&A4 45 =&"5: 6595 J=- 5B 4<: 7<B5B!<"B 45 -9&>&"<= 6-9B: A<" J5 <><&" 95<B 8"5 $*M - -" 69& 5: Q 45 (<: 59 9< A-"75995B 6& 4 5A95S <9 (<& =<"B! 64- <=J5& 45 4<B J55" <AW8<&" 5B 6& 4 45 ?< 59 <7-954<"B! <"B ><C5 4&: A-":5" 4595 -! J5><" "-6 - B&:=&D5 4595-7 <"B -B&::8<B5& 45 &">6-8=B =< 45 7<8= -" 45 ? <== <"B 45 %855" 4<C&"> 459 89" :59C5B <"B 45 ;5<A5 A-"A=8B5B!<"B J5 &"> <:S :895B! 6-8=B "- 9-8J=5 459:5=7<J-8 64< ?&>4 J5A-?5 -7 45? 5 B&B 45 : &== 4&"D& - J5 < 4&"> -7 4< "5A5::& 4< ! 6& 4-8 & 6<: B-"5! 45 A-8=B "- ;9-?&:5 <" :<75 - 45?:5=C5: "-9 A-" &"8<"A5 -7 45 5<>85 <"B 48: 45 (<: 59 -7 9< A<?5 - 5== ?5 4< <::89<"A5 6<: 45=B -7 4&: 5" 59;9&:5 J57-95 A<?5 4& 459! D"-6 "-! <"B A<""- J8 ?<9C5= 645"A5 45

"' 95 89"!' <"B' "- ' 6& 4-8 'R8: &A5!' 99<"' 4<B' 7-9?5B' 8
<' A-8" 59;=- ' -' A8 ' 45' 49-<' -7' 45' (<: 59' -7' 9< '
' &:' A89&-8:' -' -J:59C5' 4-6' 45' -;5"' B85=' 4<B' 7<==5"' *M3M
-8 ' -7' 8:5' &"' A- =<"BR$<"B' <::<::&"< &-"' J5A-?5' 45' 95S
A->"&:5B' ?5 4-B' -7' >5 &">' 9&B' -7'<' ;-=& &A<=' <" <>-"&: '
Q 45' 7<A &-":' 9<"' C59 ' 4- '@ <?5:!' 4-65C59!' 5?;5B'
J ' 4-8"B:' <"B' 4-9:5:!' M!+++i ' <' 5<9!' <"B' 45' ;9-:;5A '
-7' 45' :8AA5::&-"!' 64&A4' 9< ' 4<B' J55"' <==-65B' &"B&S
95A = ' -' ;9-?&:5' 4&?!' 6<:' &"A=&"5B' -"' 45' 64-=5' -' A<: '
4&:' 7-9 8"5:' 6& 4' 45' %855" ' 45' A-8=B' "- ' 459:5=7' J5'
&"B8A5B' -' <==-6' ?-95' 4<"' 1!+++i !' J8 ' 45' 7&7 4' 6<:'
;9-C&B5B' 79-?' :-?5' - 459' :-8&EA5 E
' :D5 A4' -7' 45' 59?:' -7' 45' 5<>85' 6<:' =<&B' J57-95'
45' -9B:' -7' -"C5" &-" ' ' 6<:' B5:A9&J5B' &"' 45' ;95S
<?J=5' <:' B&95A 5B' <><&": ' 45' < 4-=&A' A-?J&"< &-"_ <
8"&-"' -775":&C5' <"B' B575":&C5' 7-9' ;9-5A &-"' <><&": ' 45'
A-??-"' 5"5? ' 45' &">' ;9-?&:5B' &"' & ' -' J5' >8&B5B'
&"' 4&:' ?<99&<>5' J ' 45' %855"' -7' ">=<"B ' =&I<J5 4'
J-8"B' 45L=:5=7' &7' "- ' -' 95A->"&:5' 5 ' -' 95:;5A ' 45'
&">@:' & =5' -' 45' ">=&:4' :8AA5::&-" KH
(<9 ' 8<9 ' 6<:' "- ' ?5" &-"5B' -"' -"5' :&B5!' "-9' 45'
J<"&:45BE=-9B:' -"' 45' - 459' J8 ' 45' (<: 59' -7' 9< '
4<B' 8"B59 <D5"' ;9&C< 5= ' 7-9' 45' =< 59' 4< ' 645"' 45

B&77&A8=&5:' 4< ' "-6'<95' ?<B5' 4595-7' :4-8=B' J5' 45' 789 45:' 79-?' 45'
:4-8=B' ;9-A55B!' ' 4<C&">' J55"' -=B' D"-6=5B>5'-7'&!' 45' J5 59' -' ?5S
4< '&' :4-8=B' 4<C5' J55"' B-"5' 595' ' B&< 5'7-9' 45' B-59:@
A<?5' 4& 459!' 64&A4' ' 9< 459' 6&:4' K 594<;:' J ':8J:A9&;&-":' <?-">'
4<B' J55"' 4<"' -4596&:5' 8 ' -' J5' 45' -8"A&=' - -"' <:D:!' -"' 45'
;=<&"' 6& 4' -89'4-"-89!' 459 (<R5: @:' N 4' -7' 8=!' &7' 45' ?< ' &"7-9?' 45'
=<: '=5 59' -' 45' (<: 59'<BC&:&">'4&?' &">' -7' 45' ?5<":' J ' 64&A4' 45'
"- ' -' B-'<8>4 ' 4< ' ?&>4 ' ?<D5' 45' :8;;-9 ' 6<:' &"A95<:5B _ 44 ' 43*$I
&">@:'7<C-89' B5A=&"5' 79-?' 4&?' 4< 4' 8' ()
J95B' A-"A5&:' &"' 45&9' 45<B:!' <"B' &:' O 5<B:'-7'< 5&>85' -' J5' ?<B5'
45' A<8:5' 4< ' & ' 4< 4' 4<">5B' :-' J5 655"' 459' (<R5: ' <"B' 45'=&&">'
=-"!' <"B' 4< ' '<?' :-'-7 5"' ;95::5B' -7' A-:!' 8"5',$*,_ =44 ' !)
7-9' <BC&A5' 4595-"!' 4< ' -7' <==' ?5"

<==&<"A5 6<: A-?;=5 5B 45R :4-8=B J5 95A<==5B 45 <9 &A=5: 6595 >5"59<== < ;;9-C5B 45 &"> 4&" 5BK 4< 45 6-8=B =&D5 <"" ">=&:4 8A4 45 -"C5" &-"" <?;=&7&5B 45 ;95<"7&J=5! 5L;=<&"&"> 45 5<>85 - 45 7-9 A<8:5: -7 95=&>&-"" <><&": <" &"C<B59 64- 6-8=B B&: 89J 45 ;9-75::&-"" -7 7<& 4 5: <J=&:45B &"" 45 6- 95<=?:' <"B 45 9R5W8&95B 45 %855"" - 5"><>5$?-95 ;95A&:5= !" 5& 459 B&95A = "-9 &"B&95A = - ;9-?- 5 45 ;95 5":&-":-7 <" - 59 A=<&?<" !-7 45 9-6" 45 <=:- :8>>5: 5B 789 459! 4< A- :<"B ">=&:4 :4-8=B J5A-?5 ?8 8<== "< 89<=&:5B A& &I5":-7 5& 459 A-8" 9 -?5 B&7&595"A5 -7 -;&"&-"7-==-65B =&I<J5 4 B5:&95B - 95:59C5 <;-659 -459:5=7!7;8;-"8"D&"B 8:<>5 k C4&A4 :45 4-;5B 6-8=B "-<==-8 -6<9B:459! - <D5 :8A4 -9B59 7-9 45 :8AA5::&-"<: -459:5=7<"B 45 <9=&<$?5" :4-8=B! :55?? 55 H 45 95< ! 4-65C59! 6-8=B ;9-J<J= 4<C5 J55"" <99<">5B :<&:7<A -9&= - 45 ;<9&5:A-"A59"5B 45 %855"" -7 A- :79&5"B:' 4<B <J<"B-"5B <&= 4-;5 -7 ;95C5" &"> & & ;5<A5<J=5 ?5<":! <"B 45 "5>- &<&-"" 6<:=57 - 4-:5 64- 6595 B5 59?&"5B -A<99 & 49-8>4

459 6< :"- ;5<A5<J=5 4-65C59 6595 : &== -;5"" - 45? 4595 6595 : &== 45 9<B& &-"<= -9B59 5"?& &5:! 64&A4 A-8=B < <" "<-;5" J5 J=-6"" &" - <7=<?5 45 7-9 8"5: -7 45 <9= -7 99<"" B5;5"B5B -"" 45 ;95C5"S &-"" -7 <"" <99<">5?5" 64&A4 6-8=B=5<B - 459589"" -&7 45 -8>=<:5:<"B 45! <?&= -":" <"B 45 ?<"<>5S ?5" -7 45 95< 6& 4 ">=<"B 4<C&">;<::5B -8 -7 4&: 4<"B:! 45 4<B ;=<A5B 4&?:5=7< 45 B&:;-:& &-"" -7 45 8D5 -7 8&:5 - 45 A-":;&9< -9: < <9&:!& 6<: <==$&?;-9 <" - ;95C5" 45 A-?;=5 &-"" -7 45 <==&<"A5! <"B 45<C J-L5: 7J8==&-"" 6595 :5" ! -C59 &7-9 99<"! -8:5 < 4&:B&:A95 &-"&"" J95<D&">8; 45 ">=&:4 ;<9

* 9 &A=5:-7 45 95< :5" 79-?' A- =<"B! 6& 4' A-":&B59< &-":' J 459' F=<R5: ! 8= _ = 4 *$8' ()

' 9<&B' -7' A< =5' 4&5C5:' -8 ' -7' -9 48?J59=<"B!' -"' <'
=<9>59' :A<=5' 4<"' 8:8<=!$ ><C5' 4&?' 45' -;;-9 8"& ' 7-9'
64&A4' 45' 6<:' 6< A4&">E

59' -7' 5? 489: !' 64-' 6<:' <9B5"' 7-9' A- =<"B!'
6<:' -"5' -7' 45' C59 '756' "-J=5?5"' 64-' 49-8>4' >--B'
<"B' 5C&=' <B' J55"' 985' -' 45' A<8:5' -7' (<9 ' 8<9 '
-' 4&?' 45' &" 5"B5B' 95< ' 6<:' <:' B5 5: <J=5' <:' & ' 6<:'
-' 99<"!' <"B'-"'=5::' &>"-J=5' >9-8"B:!' <"B' 45' J-9B5959:'
-7' <6&AD' <"B' 5BJ89>4' 65&K5' <=6< :' 95<BH' 7-9' <' 79< '
' 6<:' 8:8<=' 645"' 4595' 4<B' J55"' <" ' B&:-9B59' -"' 45'
(<9A45:' 4<' 45' <9B5":' -"' J- 4' :&B5:' :4-8=B' 4-=B'
64<' 6<:' A<==5B' <'B< ' -7'7'98A R' <' ;5<A5<J=5'A-"7595"A5'<'
:-?5' :;-' &"' 45' B5J< <J=5' >9-8"B!' 64595' 45 ' A-8=B'
5L<?&"5' 45' A&9A8?: <"A5:!' 45<9' 6& "5::5:!' <"B' ;8"&:4'
45' -775"B59:' "' 45' ;95:5" ' -AA<:&-"' 45' ;=<A5' -7'
?55 &">' 6<:' "' 45' 45C&- :!' 45<9' &AA<9 -" ' &9' -4"'
-: 59!' 45' ">=&:4' <9B54!' J9-8>4 ' 6& 4' 4&?' <:' 8:8<='
-"= ' <' 4<"B78=' -7' 4&:' 7-==-659:!' &"' <&=' "-' ?-95' 4<"'
4955' 48"B95B' ?5"' <"B' 45' 6<:' <AA-?;<"&5B' <AA&B5"S
<== ' J ' -9B' 8::5==!' -9B' 5B7-9B@:' 5=B5:' :-"!' 64-'
4<;;5"5B' -' J5' :< &">' 6& 4' 4&?' 45"' 45' <99&C5B'
-&=' 45' >9-8"B' 45' 7-8"B' 59" 487:' "-' @&"' -9B&"<9 '
@:-9 !@ J8' :899-8"B5B' 6& 4' 45' ?-::$ 9--;59:' -7' 5C&- $'
B<=5!' @ 6& 4' J<""59:' 7= &">' <"B' B9 &"&:' J5< &">!' :8A4' <:'
@ 6595' "5C59' :55"' J57-95j'H 45' J8:&"5::' -7' 45' B<' 4<B'
4< B=' A-=" "5"A5B' 45"' <"' ">=&:4' J-' 6<:' A<8>4 '
:5<=&">' <' <&9' -7' :;89:' 8: &A5' 6<:' ;9-?;' -"' :8A4'
-AA<:&-":_ 45' J-' 6<:' 4<">5B!' <"B' A-"C59:<&-"' J5><"'
<><&"' 45' A-:!' 4-65C59!' 4<B' ?-8" 5B' 45&9' 4-9:5:!'
<9&B' >< 4595B' &" -' ?<::5:' 8BB5"=' <' 756' :9-D5:'
6595' 45<9B' 8;-"' 45&9' B98?:!' <"B' 45' 64-=5' 4955'
4-8:<"B' A4<9>5B' &"' <' J-B ' 8;-"' 45' ">=&:4!' 7&9&">'
45&9!' 4<9W85J8::5:' &"' 45&9' 7<A5:' <:' 45 ' A<?5' 8;'
P 59=' 8";95;<95B!' -:59@:' 7-==-659:' J9-D5' <"B' :A<$

K &9' -4"' -:59' -' <=:&">4<?!' 8=' F*$ 8>&'*+ _ =44'43*$8'()

" 595B (<" 75==! 45 95: 7=5B 7-9 45&9 =&C5: -: 59 4&?:5=7 6<: <D5"" <"B A<99&5B -' 5BJ8&@>4 -9B

*M3M 8>8: 8::5=' 6<: D&==5B_ D&==5B 5C&B5" = k 6&4&" 5" &-"' J -"5 -7 59@:' :59C<" :

45 8::5==: 6595 D"-6"' -' J5 5:;5A&<== B5<9 -' =&I<J5 4 45 -=B <9=-7 5B7-9B! < 4< ?-?5" -"' 4&:' B5< 4J5B! 4<B' J55"' B&: &">8&:45B' <?-"> 45 4<"B78=' -7 ;559:' 64-' 4<B' J55"' 985! 45<9 <"B' :-8=! -' 45 5S 7-9?< &-" < ;;5<9:' -' 4<C5 J55"' A<=A8=< 5B' 4< 45 ?89B59 -7 4&:' 45&9 6-8=B' 5L<:;59< 5 =&I<J5 4 &" -' 95S <=&< &-"! <"B' 4< 45 95< 6-8=B' J5 < <"' 5"BH

8:;&A&-"' ;-&" 5B' < -"A5 -' 99<" 45 A-A4 -89 6<:' < " "B956:' B6<9B' - -"! $6&4-8 6<& &"> 7-9 -9B59:! 65" < -"A5 -' 45 &">! (64-' (:45B' 5<9:' =&D5' <'EA4&=B' "56= J5< 5"!@ ;9-5: &">! J 4&:' 4-"-89 <"B' A9-6"! 4< 45 6<:' 4&?:5=7 &""-A5" ! Q 4-;&"> 45 %855"' 6-8=B' "- A-"B5?"' 4&?' 7-9 -459!E Q ?5"@:' 7<8= :! <"B' 6&:4&"> <==' 45 =-9B:' -7 45 -9B59E" Q 6595 B5<B! :-' -9B' 8::5==' 6<:' <=&C5 <><&" @ - -"' B5?<"B5B' 99<"@:' <995: 45 &"59 ?<B5' "-' B&77&$ A8= !' :5" 4&?' 8"B59 <' >8<9B' -' B&"J89>4 <: =5! <"B' -77595B! &7' 45 %855"' $6&:45B' & !' -' B5=&C59 4&?' ;9&:-"59 &" -' ">=<"BH

=&I<J5 4 --D' 45 &"> < 4&:' 6-9B! -9 6<:' J57-95S 4<"B' C& 4 4&?' &"' B5?<"B&"> 99<"@:' :8995"B59 45 8"B59: --B' ;5975A = 64< 4<B' 4<;;5"5B' 45 6<:' <6<95 -7 99<"@:' A-995:;-"B5"A5 6& 4 8&:5! <"B' 59" $

H 45 < 4-=&A:' ;<&B' 45 8::5=<' 45 A-?;=&?5" -7 J5&">' 5:;5A&<== B5=&>4 5B A-995:;-"B5" -7 <B (-9=5 k 6&& 5:' -' 459 (45 <9=-7 5B7-9B' &:' B5<B! <"B' >-"5' -' 4&:' >95< ?<: 59! 45 B5C&=! 75<9 ?5' &:' :-"' &:' B&:;< A45B' &"' <A-"7=&A 8;-"' 45 79-" &59: 45 75<9 &" ">=<"B' &:' :-' >95< 4< 65 <95 ?8A4' -' 95R-&A5' 4595< --B' (<B<?! J5 -7 <P A-?7-9 'R -89 <B :4&;@:' B5=&C59<"A5' &:' < 4<"B@_ $$$$$$$_'$*'$ ')2' = * 8 2' 8>' .N! *M3M' = 44 '5*. $!3 O/ - -"' -' <=:&">4<?! 8= .N$F+! 8>' 3$N _ = 44 '43*$8' ( )

489:' 4<B' J55"' "<?5B' J ' <99 ' <:' 45' =5<B59' -7' 45' LLL"
<9? ' $64&A4' 6<:' -' &"C<B5' ">=<"B!' 4<B' 45' 4&?:5=7' & i
:8AA55B5B' &"' D&==&">' 459' 45' 95W8&95B' 4<' J- 4' 59'
<"B' 99<"' :4-8=B' J5' :5" ' -' <9=&:=5' <: =5' -' J5' &B5B'
7-9' 45' ?89B59"' <"B!' B&: 9<A 5B' J5 655"' 4&:' ;59:-"<=
95><9B' 7-9' 4&:' 7<C-89& 5!' 4&:' ;9&B5' <:' <' A- !' <"B' 4&:'
B5:&95' -' D55;' 65== 6& 4' ">=<"B!' Q 45' &">' 6<:' :-'
Q 8"W8&5' <"B' ;<::&-"< 5' <:' 45' :55?5B' =&D5' <' ?<"' J5:&B5'
Q 4&?:5=7 Q H 99<"' ?8:' 4<C5' 7-95:55"' 64<' 6-8=B'
4<;;5"!' <"B' ?8:' 4<C5' A<=A8=< 5B' 4<' 45' :<5' -7'
755=&">' J5 655"' 45' 6-' A-8" 9&5:' 6-8=B' "-' <==-6'
<' A- A4' "-J=5?<"!' 64< 5C59' 4&:' -775"A5!' -' J5' >&C5"'
8;' <"B' 4<">5B' Q 45' &">@:' <775A &-"' 7-9' 4&?!@ --!
Q 6<:' >95< 59' 4<"' 6<:'&?<>&"5B @ 5' 6<:' 95=5<:5B' <7 59'
<' 756' B< :@ A-"7&"5?5" !' <?5:' 69& &">' -' =&I<J5 4'
-' :<' 4<' 45' 4<B' <:A59 <&"5B' 4&?' -' J5' &""-A5" " <"B'
- -"' 4<B' -' 5==' 4&:' ?&: 95::' 4<' :45' ?8:' A4--:5'
J5 655"' R8: &A5'<"B' H5' 5<>85"' &7':45' 6&:45B' -' ;8"&:4'
45' -775"B59:' :45' ?8:' 8:5' 7-9A5' <"B' :5"B' J<AD' 45'
5L&=5B' "-J=5?5" H

' A=-8B' 4<B' 9&:5"' 5L<A = ' <:' 99<"' 4<B' <" &A&;<5B'
8&:5' :5" ' -C59' ?-95' ?-"5 ' 45' <9=' -7' 8" = !'
<=6< :' 95"A4' <"B' <4-=&A!' 95<;;5<95B' <' 45' -89'
45' &">' 95;=&5B' -' <' :5A-"B' B5?<"B' 7-9' 99<"' J'
<' B&95A' 9578:<=" <"B' 45' <9? ' -7' 45' 5<>85' &"' 9<"A5!'
=57' &B=5' J' Q 45' ;<A45B$8;' ;5<A5!@ 6<:' ;=<A5B' <' 4&:'
:59C&A5' &7' 45' 6-8=B' J95<D' <= ->5 459' 6& 4' ">=<"B

45' (<: 59' -7' 9< !' :55&">' 4-6' 4&">:' 6595' 5"B&">!'
<BC&:5B' 45' %855"' -' >&C5' ?-"5 ' &"' 89"' -' ">8:' <"B'
45' <?&= -":!'<"B' Q =5 ' 45?' :=&; @ 5' 8"B59 --D' 4&?S
:5=7' -'R-&"' 45?' 6& 4' 4&:' 79&5"B:' <' 596&AD' <"B' 99<"

K - -"' -' <=:&">4<?!' 8> K - -"' -' <=:&">4<?!' 8>'
_* ' 2E&2

A-8=B' 45"' J5' D&==5B' -9' <D5"!' 45' &">@:' ;59:-"'
:5Ac95B!' <"B' 45' 95< ' J2' A-? ;=5 5B' <' =5&:895 H

*M3M 8<8H

&?5' ;95::5B' 45' 5:8& :' :4565B' 45?:5=C5:' <><&"'
=&D5' C8= 895:':A`" &">'A<99&-"' (-9<' 9<4&' ;59&A8=8?!@
:<&B' - -"!' &"' =5 59' <7 59!' =5 59' &:' -6"' =&75' 6<:'
&"' B<">59' 45' ?89B59' -7' <"' <?J<::<B-9' 6-8=B' A-?S
;=5 5' 45' 6-9D!' <"B' ?<D5' 4`' 98; 895' A59 <&"' -=-"5=
56<9' @J9<C5B' - -"' -' 4&:' 7<A5' @&"' 45' & &">@:' ;95S
:5"A5!' :< &">' 4<' 4a' A4<9>5' <><&":' 99<"' 6<:' 7<=:5'
- -"' -=B' 4&"&' 4<' 45' =&5B' 9<' 6<:' 89>5"' 7-9' <
9`:-=8 &-"' &&a' 4<B' A-?"&& 5B' 4&?:5=7' :-' B55;=' 4<'
&7' ">=<"B' B&B' "-' ?-C5!' 4`' :<&B' 4<' 45' ?8:' =--D'
-' 4&:' -6"' :<75 !' <"B' A4<">5' :&Ba:' d><&" H

=&I<J5 4' 6<:' &"' 459' "-9?<=A-"B& &-"' 7' 45' =-9`7:'
65" ' B-6"!' 45' 9"&"&: 59:' 6-8=B' 7-==-6' " <?5:@:' ;<;59'
5;&:A-;<A !' 64&A4' :45' :-' &"8A4' <;;9-C5B' -7!' 6-8=B'
A98?J=5' <"B' 45' &9D' Ja' <><&"' &"' 4`' <:A5"B<" ' <=$'
:&">4<?' 69- 5' >9d `78==' -' 45' E(<: 59' -7' 9< !' 5LS
;95::&">' 45' 78==5:' : ?;<4' 6& 4' 4&:' C&56:" J8 !'
J5 655"' <=:&">4<?' <"B' 45' %855"' 4a75' 6595' 4a'
8:8<=' B&77595"A5:' -7' J=;&"&-"H' <=:&">4<&"' 6<:' 7-9'
:5"B&">'E J<AD' 45' =-9B:' -;5"=' <' -"A5' `' 4<B' B&:S
<;;9-C5B' <&=' <=-">' -7' 45&9' <J<"B-"945" ' 45' %855"'
9578:5B' -' ;<9' 6& 4' ?-"5 !' D9&B' : &&=' J5=&5C5B' &"' B&;=-$'
&4<A ' g45' B5?<"B' 7-7' 4`' :8995"B59' -7' 99<"' 6<:'
6& 4B9<6" ' 45' <?J<::<B-9' 6n:' B&95A 5B' -' :<' 4<'
J' 4&:' 95=5<:5!' J' 45' 95;<&9' -7' 45' 5:8& :' 4& 459!' <"B'
>5"59<==' J' 45' A4<9<A 59' -7' 4a' &"P9B59!' 45' %&&55"

K O;7!' 1!_ =7 ' 43*$8' ( )
K' - -"' -' <=:&">4<?!' 8>'
F*$ 5;' *+!' 5;' &$&&' _' =44
!.
F ' / =&`&& 65' <BC&dJ' -' 8:`' -?5'
6<' -7' ;95C5" &-"' 45"' <95' 65

4-&=>4D' <&& -9:' -7' 8&45A5::<9'
A4&8>5:&' <"B' 645"' 6' =<' -;5B' 45'
<;;<95" 'B<">59:!' 45"' <95' 65' 45<9B'
<:' ?5"' ;-::5::5B' 6& 4' C<&"' 75<9:@_'
'8!(7 '.'$*' *$$*(' 5;' 1$*1'
=44' :!)

Q :<6'A<8:5' -7'R5<=-8: !@<"B' 4<' :45' <BC&:5B'<"B' J5>>5B' 7-9' 45' =-9B:@ W8&5 ' 95A<==

<' C&<' B5=' &45I-!' - -"' 95;=&5B!' 6<:' <= ->5 459' 8";9-7& <J=5'' R&5' &">' 6<:' -"' 45' C59>5' -7' J95<D&">' C& 4' 459!'<"B' =&I<J` 4' ?8: ' 5& 459' &5=B'<= ->5 459' -9' >-' 9-8"B= ' -' 6-9D' 45' - 459' 6< ' :' <"B-=;4!' <:' 49->?-9 -"!' <:' <C&:-"!' 4<B' 95;-9 5B' ?<" ' <' &?5!' J57-95'&"' 45' :<?5' 6-9B:!' Q 45' A-=B' B5<=&">' -7' 4>=<"B' @' 6<:' <J=5' -' B9&C5' 45' ?-: ' A-": <" ' -' :55D"56' A-89:5:' @ 7-9' 45&9' -6"': <"B&"> @H x=8&:5' :5" ' 99<"' 6-9B!' 4<E &7' 45' A-8=B' 4-=B' -8 ' J8 ' 7-9' :&L' 655D:!' 45' :4-8=B' 4<C5' "<5'' <"B' ?-"5C 5"-8>4' -' 5"A-8" 59' <==' 45' 7-9A5' 4<' A-8=B' J5' :5" '<><&": ' 4&? ' H 99<"' 6<:' 4&&":5=7';95;<9&">' 7-9' <"' <9?5B' : 98>>=5!' >< 459&">' -' 4&:' :&B5' 5C59 ' =--:5' =<"A5'&"' A- =<"B ' '95;-9 ' J5&">'<J9-<B' 4<' 45' =-9B:E 6595' A-?&">' B-6"!' <' >5"59<=' =5C ' 6<:' ;9-A=<&?5B' -7' <==' A- :' J5 655"' &2' <"B' 2-' -' 5"A-8" 59' 45' ">=&:4' 5"5? =&I<J5 4' 6<C595B'=&D5' <"' <:;5"'' -"5' B<' <=:&">4<?' -=B' 9<' 4<' <==' 6<:' 65==' 45"' 99<"' 69- 5' 459' <' = &">' =5 59' <"B' <==' 6<:' A4d">aB' <77<&9&' 59" 489: ' 6<:' "5L ' -77595B'<:' <' C&A &?'R' 59" 489: ' 6<:' --' 7<& 478=' -' (<9 ' 8<9 '' <"B' @' 45' &">' <"B' 99<"!@ - -"' 69- 5!' QA-8=B' J5' 65==' A-" 5" 5B' 45' 6'595' 4<">5B' @' :-' 4<' 6-8=B' :< &:7 @H!E59" 89: ' :4-8=B' J5' :5" ' -' <9=&:=5' &7' 4H8:' <"B' 45' <?&= -":' 6595' B5 <&"5B' &&& ">=<"B!' <"B' 45' 5<>85' ?&>4 ' 45"' >-' 7-96<9B' <:' J5S 7-95' ' E 45' %855"' 6<:' B&:;-:5B' -' <>955 ' - -"' <: C&--=5" = ' -JR5A 5B'H' Q -' 98: ' 4-6' &;' 45' 5<>85!@ 45' :<&B!' Q 8"=5::!' 45' =-9B:' J5' 95: -95B!' &:' -' 98: ' -' <' @ 9- 5"' : <77!@ C4&A4' 6-8=B' J5' -9-D5"' < ' 45' &4-?5" ' 645"' & ' 6<:' ?-: ' "55B5B

45' %855"!' &7J9 -"A5!' 75=' 45' -J=&>< &-"' -7' <' ;9-?&:5

&' - -"' -' <=:&">4< t" 5; K'
R'&$<& _ '= 44 ' 43*$8' ()

' - -"' -' <=:&">=&<&"!' 5; '
K' - -"' -' <=:&">4<?!' 5; 8!D$4 < = 44 ' :!)

, 45 <&B :45 4<B &9&C5"' 459 &9-9B -' <?5:' 4<' 45
$$$$$$' =-9B:' :4-8=B' J5' D5;' &"' ">=<"B' - -"' &":&: 5B' 4<
-H59<J59' <?5:' 4<B' J9-D5"' 7<& 4' 7&&@:' &"' 95=5<:&">' 99<"' 6<"'
-7' 95:-=8 &-"' 6-8=B' 98&"' 05C59 4&">' 45' (<: 59' -7'
'2' 6-8=B' ?<D5' 4&:' -6"' 59?:!' <"B' @ 45"' &' 6-8=B'
@ J5' --' =< 5' -' 95;5"' <' =-:' -;;-9 8"& ' 64&A4' 6-8=B'
@ "5C59' <><&"' J5' -77595B @ &"' <' 756' B<:' A-=<"B' 6-8=B'
J5' 78==' -7' 95"A4?5"!' <"B' &7' 45' 95 89"' -7' 45' =-9B:'
A-8=B' J5' B5=< 5B' 7-9' J8' <' :4-9' &?5!' 45' 95"A4'
;<9 'A-8" 5B' 4<' 45' ><?5' 6<:' 45&9: H
<?5:!' 64-' 4<B' J55"' <' 7&9:' 79&>4 5"5B!' 6<:' 7<:' 95S
A-C59&">' 4&:' A-"7&B5"A5' 99<"' <::895B' 4&?' 4<' 45'
%855"' 6<:' @ J8' J-<:&">!@ <:' :45' 4<B' B-"5' J57-95' 45'
5L5A8 &-"' -7' (-9 -"!' <"B' 4<' :45' B<95B' "-' ?-C5' 45'
(<: 59' -7' 9< !'B&: 9<A 5B' <' Q 45' =-">' ">=&:4' B5=< !@ -=B'
-"' ;=<&"=' 4<' &7' <"- 459' 7-9 "&>4' sC<:' <==-65B' -'
;<::' Q45' 6-8=B' :4&7' 7-9' 4&?:5=7'@ 45' 95"A4' 6595' ?&=D&">'
=<9>5' -7759:' -' 4&?!' <"B' 45' B<95B' "-' 9578:5' J' R-&"'
45?' -"' :<&B' 4<' 45' 6<:' "-' >5"59<==' <"' <&BC&:59'
-7' @ C&-=5"' A-89:5:!@ J8' @ ?< 59:' 79<?5B' :-' 8" 46<9 =' '
@ 4<' "-' >--B' A-8=B' J5' B-"5' J8' J' 6<' -7' 7-9A5'@ &"'
<"- 459' 655D' -9' 6-' 99<"' 6-8=B' J5' ?<: 59' -7' A-=<"B'
<"B' 45' &">' 6-8=B' J5' A=<' &"' 4&:' 4<"B:' -9' 4&?:5=7!'
-"' 5" 95< 5B' -' J5' &??5B&< 5=' 95A<==5B' C59'
-"5' <' 45' -89' A<99&5B' ;&: -=:!' <"B' ?5"' 64-' 4<B' "-'
:;<95B' &">:' <"B' 5>5" :' 6-8=B' "-' J5' "&A5' <J-8' <?S
J<::<B-9:' @ 7' 45' %855"' 6-8=B' :5"B' B-6"' 45' =-9B:!@
45' :<&B!' @ 45' 6-8=B' 6-9D' 6-"B59:' <"B' 95?5B' <==
@ &"A-"C5"&5"A5:' &7' :45' 6-8=B' "-!' 45' A-8" 9' 6-8=B'
@ J5' A=5<"' =-:' <"B' <==' 459' 79&5"B:' 695AD5B' 45' &">'
@ 6<:' -8">!' <"B' 5<:&=' A<99&5B' <6<!' <"B' ?-:' -7' 45'
@ ;59:-":' <J-8' 4&?' 6595' <;&: :' -9' 45&: :@H

K - -"' -' <=:&">4<?!' 5; ' K - -"' -' <=:&">4<?!' 5; '
D!4 _ =44' 43*$8' () ..$ A!' X <=44' :!)

4595' C<:!' <:' 8:8<=!' -"5' : 9<&>4 ' 4-"-89<J=5' 9-<B -;5"' -' =&I<J5 4!' <"B' <:' 8:8<=' :45' 6-8=B' "-' 9<C5=' $$$$$ 8;-"' & ' -' <C-6' <"B' ;9- 5A ' 45' =-9B:!' 64-' 4<B' 5;5?JB9 J55"' B9&C5"' -8 ' -7' A- =<"B@-"= ' 7-9' 4<C&">' :59C5B' 459' --' 7<& 478== "' -' 95: -95' 45?!' 79<"D= !' A-":;&A8-8:= !' <"B' 6& 4' A-"75::5B':8;;-9 !' 6<:' <' : 5;' -' 64&A4' "-'<9>8S ?5" ' A-8=B'&"B8A5' 459' -' A-":5" ' 45' ?-:' 64&A4' :45' A-8=B' J5' J9-8>4 ' -' A-" 5?;=< 5' 6<:' 4< !' <:' &7' 65<9 ' -7'&"<A &C& ' <"B' 4-;5=5::' -7' ;<9B-"!' 45 ' :4-8=B'<;;= ' -' 459' 7-9' ;<::;-9 :' -'>-'<J9-<B!'<"B' 4< !' C45"' : <9 5B' 8;-"' 45&9'R-89"5 !' 45 ' ?&>4 'A4<">5' 45&9' 9-8 5' 7-9' 45' -9B59' 6& 4-8 ' 459' -6"' <;;5<9&">' -' 4<C5' :<"A &-"5B' 45&9' 95 89"' -' A- =<"B ' -' :8: <&"' 45' 7<9A5!' <"B' ;9- 5A ' 459:5=7' 789 459!' :45' <;;=&5B' 49-8>4' - -"' 7-9' <?5:@:' ;59?&::&-"' -' 45?' -'>-' -' 59?<" H

8 ' 5C5"' :-' :45' Q: &=' C<9&5B' &"' 459/;89;-:5 @ <=$' :&">4<?' 4<B' J55"' 8"<J=5' -' A-"C&"A5' 459' 4<' :45' 6<:' 95<== ' &"' B<">59 ' @ 45' 6<:' A<99&5B' <6<' 6& 4' 45' @ 4-;5' 4<' 45' 95< ' 6-8=B' 4<C5' A895B' <==!@ -9' 4<' 4595' 6-8=B' J5' <' 795:4' 5L;=-:&-"' &"' 9<"A5 H' ' =5"> 4' :45' 6<:' ?<B5' -' :55' 4<' 45' 8D5' -7' 8&:5' 6<:' 95<== ' ?5B& < &">' <"' &? ?5B&< 5' B5:A5" ' -"' A- S =<"B ' "' <?5:@:' :&"A59& ' :45' /4<B' "-' J5=&57' <' <" ' &?5!' 789 459' 4<"' :45' A-8=B' 4-=B' 4&?' J ' 4&:' &" 595: ' <=:&">4<?' J5=&5C5B' 4&?' -' J5' 7<=:5' &"' 95=&>&-"'H' <"B' -'=-:5' 45' (<: 59' -7' 9< ' 6<:' <' 9&:D' --' 7-9?&B<J=5' -' J5' C5" 895B ' @ 7 59' ?< 895' B5=&J59< &-"' :45' J5><"' -' @ 7<==' -' 95:-=8 &-"@H - -"' : &==' ;95::5B' 7-9' 4<: 5

@' <=:&">4 &?' -' - -"!' 5;' 11$ A ' 1 _ = 44 ' 43*$8' ()' =&I<S J5 4' -' <?5:!' -C' *+$.+ _ !)

O <=:&">4<?' -' - -"!' 5;' .1$ A ' 1 _ = 44 ' :!)

K@ 45' J98&:' >&C5"' -8 ' J ' 45' <;&: :!' J- 4' 4595' <"B' 4595!' -8A4$ &">' 45' &">!' ' B-' <::895' -8'<95' "-' 6& 4-8 ' A<8:5!' 7-9' 45' B- 4' J8 ' B&::5?J=5'&"' 95=&>&-"!' 64< :-5C59' 45' ;9-75::5 4' -' 45' A-" 9<9 @_ :!)

K - -"' -' <=:&">4<?!' A ' M$' 'Y < = 44 ' :!)

*M3M
0 + 4"

9- 9<A &-" -7 &?5! 45 69- 5 &" A&;459! &:C5&
B<">59-8:! A5=59& ?8: J5 45 6-9B H 8" = !
9<67-9B! <"B (-" 9-:5! 6595 >< 459&"> 45&9 7-9A5: -
H-&" 99<" 45 7&"<= : 5;! 45957-95! 6<: < =<: <D5"
- -" 6<: 95A<==5B 45 %855"! 7&"B&">! <: :45
:<&B! &"-95B95::7-9 -9B 8::5==:? ?B59! B5A=<95B
;8J=&A= 4< :45 B&B "- 4&"D& H4-"-89<J=5 -<==-6
<?&"&:59 -95?<&" < 45 A-A4 -89 '! <"B 45
: -=5 <HC< 6& 4-8 <D&">=5<C5 ws 9 ; -"! 69-5
0 <=:&">4<? -<C&:-"/" &:95 &95B -8 -7 A-=<"B!
:<":B&95 <B&58" -8 :4<== 45<9 -7 <A4<">5 4595
:4-9 = " ;9< -B& ?< J57-9 45 J5: !H ">8:!
(<9! &9 -4" -=C&==5! <"B &=5 (<:59 -7 =<? :! :5"
&"<7-9?<=95W85: -=&I<J5 4! 64&A4 6<:5<:&= >9<" 5B
45?! -J5 <==-65B -=5<C5 ">=<"B 7-9 59?<"
R 45 9-B5 :9<&>4 7-9 45 -9B59 45 6595 ?H <
5BJ89>4 J -9B 8?5! <"B <756 ?&=5: 789 459 J
-9B <?&= -"! 64-4<B >-"5 B-6" J57-95 45? 45
4< 95B <><&": 99<" 6'<: :-B55;<"B >5"59<= 4< 4-
">=&:4 45=;6<:"55B5 B 45 64-=5 - J&<4:9-:5! <"B
:8;59: & &-" ><C5 45 9&:&">< ?-95 4<" "< 89<= 7-9A5
45 ;=<>85 4<B =<&"!7-9 ?-" 4:8;-" 45 A-A4 -6":
65" 4-8:<"!B H;5-;=5! &" 45 6&=B! 5: &?< 5 -7
599-9! 4<B B&5B &" B&"J89>4 <=-"5 <B R99<"
6<:!J5=&5C5B -J5<6& A4! <"B 45 ;5: &=5"A5 -J5 -B:
R8B>?5" 8;-" 459 <"B 459 48:J<"B:B5C&=9&5: HP"S
95:&: 5B <"B 6& 4 >< 459&"> "8?J59: 45 =-9B: :65;
-" -&9=&">! 64595 45 &"> 6<:= &"> 9< ! (<&S
=<"B! <"B 5==5"B5"! 95?<&"5B$H 4 4&?' -;95C5"

H - -" -<=:&">4<?!E A ,$:<&B 4< 45 &?5 6<:" - A-?5!
K, _ = 44 43*$8'() 9-?<"- 459 J8 4< & :4-8=B :4-9 = J5 J9-8>4
:-89A5 & 6-8=B :55?4< <?5: -;<::< 43*$$! ')L3 $! . ($46 3$
?<B5 ?-95 95:&: <"A5 4<" 99<" *N$.N _ = 44 :!) ŒK
5L;5A 5B -8&:5:-?&">-C59 K = 44 #*#'() A! .F$ -C
99<"! &" 45 ?&BB=5E J7 A-J59!

99<"' 79-?' A<99 &">' (?' -77' 99<"' 9&5B' -' :5&I5'
45?!' J8 '7<&=5B!' <"B' 5:A<;5B' &"' B&:>8&:5' J ' 45' 6< 59$' H_ _'
>< 5!' 7=&">&">' ! 45' D5 :!' &" -' 45' -9 4' <:' 45' 7=5B' 8-P?J5'
<?5:' 6-8=B' 4<C5' >-"5' <=:-!' 75<9&">' ;9-J<J=' 4&:'
7< 459@:' 7< 5' 5' :-=5K' B-6"' -' <' ;-: 59"' 6 (A4' 45'
4-;5B' -' 7&"B' 8">8<9B5B!' J8' 45' =-9B:' 4<B' J55"' --'
A<9578=' -' =5<C5' <' J-= $4-=5' -;5"' 5' 6<:' A<>5B!' <"B'
4<B' -' 6<&' 7-9' (:' 7< 5' "' 45' <"B' -7' -C5?J59H'
45' -6"' -;5"5B' &:' >< 5:' 6-' B< :' =< 59' 45' A<: =5'
:8995"B595B' <=:-' 45' &">' 6<:' -"A5' ?-95' <' ;9&$'
H:-"59' &"' 45!4<"B:' -7' 45' H9^ 5: <"' "-J=5:!' <"B' <==' 6<:'
- 59

48:' 9<;&B=' 45'!9`C-=8 &;"' 6<:' A-?;=5 5B!' <"B' 45'
'4-;5:' -7' 45' <4-=&A:' 6595!<><&"' @B<:45B'@<' 45' ?-S
?5"' 645"' 45' 6595' <J-8' -' J5K'95<=&:5B' ' :5A-"B'
9<&B!' ?-95' 577&A&5"' 4<"' 45' 9<&B' -7' 8 4C5"!' B5: 9- 5B'
45' 7<A &-"' 64&A4' 7-9' :&L' 5<9:' 4<B !B&: 9<A 5B' A- =<"B
-' J=--B' 6<:' :45B!' "-' 5C5"' 99<"@:!' 64-!' : 9&;;5B' -7'
(:' 8:89;5B' 65<= 4!' 6<:' =57' -' 6<"B59' &"' ;-C59' <"B'
-!B&5' <' =<: !&"' <' J9<6=' 4O' <?&= -":' 95A-C595B'
45&9' 5: <5:' ">8:' 6<:' 95&": <5B' &"' 45' :;=5"B&B'
&"459& <"A5' -7' 745' -8>=<:5:' 45 &">' !':C<:' 95< 5B
':-'?8A4' J5 59' 4<"' 45' 5L;5A 5B' 4<' 45' 6<:' 5<:&=' '
95A-"A&=5B' -' 4&:' 7< 5' 45!'=-9B:' <775A 5B' <' 95>95' -'
4&?'7-9' 45' C&-=5"A5' &" -' 6 (A4' 45' 4<B' J55"' B9&C5"
45 !<::895B' (?' -7' 45&9'*95:;5A $7-9' 4&?:5=7' 5'
:<&B!' :4956B=!' @' 4595'K6<:' ;-'"55B' -7' 6-9B:'' 65<;-":'
@4<B' :;-D5"' =-8B' 5"-8>4!' <"B' >- 5"' 45?' <8B&5"A5' -'
A=5<9!' 45&9' -'CC'' A<8:5@H

=&I<J5 4!' -8 B&B' 459:5=7' 5=&5C5B' -7' 459' B<">59!'
:45' ;9-75::5B' !-' 45' -C5964 5=?5B' 2($' <:-"&:4?5"'
=<9?5B' 7-9!459' B5<9' J9- 459=:' :<75 !' <"B' :;5A&<==' '
jB5:&9-8:'!45' :4-8=B'!8;B59:<"B' 4<' H45' 4<B' J55"' "-

' ' K' <=B596--B

6& 4 4&: ?<: 59: 5 :<&B 45 4<B J55" >95< = -775"B5B
6& 4 45 =-9B: < 45&&@ 7&9: 95 89"! J8 7&"B&">" 4<
&:3& -C-"&J59 45 ?5<" 4&?" -4<9?' 45 A-":&B595B -B 4<B 6-&@D5B
<' ?&9<A=5 &"' J9&">&">' <J-8 :-' 4<; ; <' 95A-"A&=&< &-"
45 ?&>4 4<C5 B-"5 64<' 45 ;=5<:5B 6& 4 4&?! <"B
45 6<:' "-6 :< &:7&5B 4<' 45 4<B <D5"' <9?:! "-
<><&": 4&?! J8 <><&": 99<" 5 6<:' A-" 5" 6& 4
45 95:8= ! <"B B5:&95B "- 4&"> J8 45 A-?;=5 &-"' -7
45 ">=&:4 95< H

45 B5:&>":' -7 8&:5 8;-"' ">=<"B 6595 -"A5 ?-95
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5L :' -' 45 4<"5=' A-<: ! <"B 6595 95<B ' -' 5?J<&@D
<' <' B< @:' "- &A5 45 <4-=&A:' 4<B -"A5 ?-95 A-"S
>9< 8=< 5B 45?:5=C5:' 4<' 45&9 B< ' -7 B5=&C59<"A5
6<:' <' 4<"B ' -"A5 ?-95 <=' 4<B J55"' J9-D5"' 8;' "'
">=<"B & :5=7 45 ;<9 ' -7 &":8995A &-"' 6<:' >9<B8S
<= ' B&::-=C&">' <>5 ' <"B (-9=5 ' 6595 <J9-<B ' -9B
5"9 ' =&-6<9B <"B 45 <9=' -7 -9 48?J59=<"B 6595
&"' 45 -659 ' -9B 98"B5=! 7-9 64-?' 45 %855"' 4<B
<' :;5A&<=' 5"B59"5::! 4<B J55"' 8"B59 <995: ' <=:-' 7-9
<' &?5! J8 ' 4<B J55"' 95=5<:5B <"B 4<B J55"' 45=B &"'
< 5"B<"A5 <' 45 -89 ' 4<' 45:5 "-J=5?5"' 4<B
J55"' 7-9 ?<" ' 5<9:' 5">5B &"' <A &C5 A-":;&9<A ' 4<'
45 ' 4<B &" 5"B5B <"B 4<B B5=&J59< 5= ' ;95;<95B -'
95J5=' <:' :--"' <:' 8&:5 :4-8=B =<"B 5& 459 &"' A- =<"B -9
">=<"B! 45 A-995:;-"B5"A5 -7 (5"B-I<' <"B 5 <::&:'
A-" <&":' 45 ?-:' A-"A=8:&C5 ;9--7:' 45&9 ;9-A55B&">:'
<"B 45&9 ;89;-:5:' 4<B &"B55B J55"' 95C5<=5B 6& 4 :87S
7&A&5" 'A=5<9"5:' J '' 9<"A&:' 49->?-9 -"! <"B 45 '4<B
J55"' 95A5&C5B &" -' 45 489A4 :&"A5 45 ;<::&"> -7 45
: < 8 5 64&A4 ?<B5 & ' <' ;5"<=' -775"A5' 8 ' =&I<J5 4
A-8=B "-' J9&">' 459:5=7 -' ;8"&:4 45 :-"' <"B J9- 459

' &==&<?' "-== :' -' <=:&&&>J<?! -C' .F$ 5A' F _ &&7\ E' 43*$8'()

-7 45 8D5 -7! -97--D 98"B5= 4<B J55"95: -95B - - - ?
&" J=--B" :45 4<B C&:& 5B$4&?' < 9<?=&">4<?'' :45
4<B &" 5"B5B -' >&C5 4&?' J<AD 45 B8D5B-?" 7-9 4&:' *M3M
7< 459@:' :<D5 :45 4<B :456"' 4&?' 5LA5; &-"<= D&"B"5::!
<"B 45 95;<&B 459 J ' <D&">' 4&:' 7< 459@:' ;=<A5 < ' 45
45<B -7 45 B&:<775A 5B < 4-=&A:' 5 4<B B5"&5B 4&:'
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:45 957&&:5B -' B&:J5=&5C5 4&?' 5 4<B J55"' ;95:5" ' < '
45 -;5"&">' -7 45 =<:' :5::&-"' -7 <9=&<?5" ' 45
<::-A&< &-"!' 4-65C59!' <"B 45 J&=' 64&A4K 6<:' 7-8"B5B
8;-"' & !' 6& 4 45 A-?;<"&-"' <A ' <><&":' 45 5:8& :!
64&A4 45 -;;-:5B&"' 45 -8:5 -7 -9B:!' :4565B 4&?'
4<' ">=<"B 6<:' "-' :<75 ;=<A5 7-9 B&:=- <= "-J=5?5" '
5 69- 5 <' =5"> 4 -' =&I<J5 4!' A-"75::&">' 4&?:5=7 <
< 4-=&A' &5 A-?;=<&"5B -7 45 ?<=&A5 -7 4&:' 5"5?&5:!
<"B <==8B5B -' 45 5"B:' -7 4&:' 7< 459 <"B >9<"B7< 459'
5 -=B 459 4<'7-9 45 :<D5 -7 4&:' :-8=!' 64&A4 6<:' &"'
;59&= <?-">' 4595 &A:!' 45 75=' -J=&>5B -' 95 &95 -' 45
-" &"5" ' "-6&">' 4<' :45 6-8=B 9578:5 4&?' ;59S
?&::&-"!' 45 =57' 4&:' =5 59 -' J5 >&C5"' -' 459 645"' 45
6<:' >-"5' 'C5::5= 6<:' 6<& &">' 7-9 4&?' &"' <' A955D
:-?5645 95 &"' 8::5L' 5 5?J<9D5B <"B 4<B ;9-S
A55B5B 4<=7 <' ?&=5 -' :5<!' J8' 45 -C59"?5"' 4<B ;9&=
95A5&C5B "-&A5 -7 4&:' &" 5"B5B 7=&>=RA ' "' <9?5B J-<'
=<' &"' 6<&' 7-9 4&?!' <"B 45 6<:' <D5"' <"B J9-8>4'
J<AD -' 45 -659' ><&"' 45 B5A=<95B ?-:' :-=5?"=' 4<' 45 4<B J55"' >8&= ' -7 "-' B&:=- <= ' 45 %855"'
Q 6<:' ;=5<:5B -' 95A5&C5 @ 4&:' ;9- 5: <&-":' -7 &"'-A5"A5'
49->?-9 -"@:' A-"75::&-"!' 4-65C59!' 45 6<:' -=B!' 4<B
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64-' 4<B "<?5B 4&?' <:' 45 5L;5A 5B =5<B59 -7 <' 95S
J5==&-"' &:' Q7<==&">' <6<' &"' 95=&>&-"!@ 4&:' A-"B8A'
&"' <9=&<?5"!' 45 &" &?<A' -7 <B' 98"B5= 6& 4' 45
&<>5 :!' <"B 4&:' < 5?;' -' : 5<= -8' -7 45 95<=?!' 6595

A&9A8?: <"A5: 5"B&">! <== - 7 45?!: 9-">= - A-"7&9?
45 :8:;&A&-":- 7 4&?!<"B 45 6<:&"C& 5B - 95><9B 4&:
*M3M ;9&= ;95:5" 95: 9<&" 9< 459 <: 7<C-89<J=5 <"B >9<A&-8: B5<=S
&"> 4<"<: :5C59& H
" 45 -659! 45957-95! 98"B5= 95?<&"5B! 8:5=5::
45"A57-96<9B 7-9 45 ;89;-:5:- 7 45 <4-=&A: -9B
E-9 48?J59=<"B! 64- 6<: - 4<C5 9&:5"6& 4 4&?
<"B 6<: - 4<C5 :4<95B 45 4-"-89 -7 45 95C-=8 &-"!
4<B B5:59C5B <"B 6-8=B ;9-J<J= 4<C5 7-8"B =5::>5" =5
95< ?5" -?;9-?&:5B &" 45 95J5==&-" -7 *M2N!
4-8>4 <C-&B&">95<:-" &" 45 7&9: B5>955! &9
=5"9 59A 4<B 5:A<;5B 6& 4 < 7&"5 -7 M!+++j 45
%855" 4<B "- -"= 5LA8:5B 4&?;< ?5"!J8 J5&">
8"6&==&"> 4< <" -=B ;559<>5 :4-8=B J5A-?5 5L &"A !
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45 &=5 45 4<B <B-; 5B 4&: J9-459:;-=& &A: <"B 4<B
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6-8=B ;9-J<J= 4<C5 7-8"B "-"5 <B 45 J55"9&5B
45 ?8: 4<C5 J55"7-8"B >8&= !<"B A-8=B "- 95<S
:-"<J= 4-;5 -5:A<;5 5L5A8 &-" -:<C5 4&:;9-;59 R/!
45957-95! 7-9 4&: A4&=B95"! 45 <" &A&;< 5B 7-975& 895! <"B
:4- 4&?:=7 &"4&:9--?&" 45 -659 H

E -9B: - J5 8:5B - J5 <&B -7 98"B5=! ;9&= *HM <=:&">$
4<?@: 4<"B _ =44 5*. $!3
O 6<:&?? 5B&< 5= :<&B 4< 45 J<B J55"?89B595B 5 6<:7-8"B
B5<B &": 4&: J5B! :4- 6& 4 4955 J<==:&" 45 J95<:! 6& 4 J5 ;&:-=
-" 45 7=--9! <"B 45 B--9: J-= 5B_ :-& 6<: -77&A&<= :<5B_ -" 45
":&B5 6<:<9>85B 4<&" <;=<A5 =&D5 45 -659<;&&:-"59 A-8=B "-
J5&" ;-::5::&-" -7<=-<B5B ;&: -=!"-9
6-8=B <;9&:-"59@: B--9 4<C5 J-=:
-" 45&":&B5 45 <4-PA: :;-D5
A-"7&B5" = -7 7-8=;=< 45 5C5"
"<?5B 45 ;59:-"! <:5&6<" -7 &9
49&:-;459 8 -"! J 64-?45
B55B 6<: A-??& 5B 45 -C5?$
?5" 6<: A-"75::5B= <79<&B -7 45 95S
;-9 !<"B <"L&-8: -A=5<9& :5=7! <"B!

48:' >9<B8<== ' 45' < 4-=&A:' 6595' A-==<; :&">' <:' < 7-9?&B<J=5' ;<9 ' &"' 45' < 5' <"B' :55&">' 45&9' 4-;5:' J=&>4 5B' <"B' 45&9' 5"5?&5:' 9&8?z 4<" !' 6595' "-6' ?-95' <"B' ?-95' &"A=&"5B' -' :& ' : &==' <"B' 6<& ' 7-9' 45' -;5"' &" 597595"A5' -7' ;<&"' -9' 9<"A5 ' -' 65<;-"' 7-&@?5B' <><&": ' 45' %855"' :55?5B' -' ;9-:;59 ' 45' -;5@:' <"< 45?<:' 4<B' J-9"5' 798& ' -"= ' &"' 45' 9- &">' W8<9 59:' -7' 6-' 48"B95B' 5:8& :' <"B' 45' :D8==' -7' 5:?-"B' 8;-"' < :;&D5' -"' -"B-"' 9&B>5 ' 45' >95< ' -659:' 4<B' =--D5B' -"' &"' &"B&77595"A5!' <"B' 5C59 ' -"5' -7' 45?S :5=C5:' 64-' 4<B' B<95B' -' ?-C5' &"' 45' A<8:5' 6<:' 5& 459

< 4-=&A' 4&: -9&<":' 4<C5' 7-8"B' 789S 459' >9-8"B' 7-9'<::8?&">' 45' ?L8@B59' ;9-C5B!' 79-?' <' ;<::<>5' -7' <' =5 59' k 6@& 5'' ?<" ' 5<9:' <7 59' 4 ' &9' <= 59' <=5&>4' -' &9' -J59 ' 5A&=@' -9' <7 59' 95C5">5!@ <=5&>4' :<&B!' @ 75<9' 45?' "- ' 8?-89:' -7' ?5"' :8AA55B' "-!' J8 ' >9-6' J ' -AA<:&-"' <"B' <AA&B5" :' -7' &?5' <"B' ;-659' --?59:5 ' ?<B5' "-' 95C5">5' -"' 45'@ 8D5' -7' -9 48?J59=<"B@:' 45&9:' -9 48?J59=<"B' 4<' "-6' &:' 4&"D:' "-' -7' < -"@:' &::85@ 45:5' 6-9B:' :;5<D' 8"B-8J 5B= ' -' <' J5=&57!' <' 45' 5"B' -7' 45' A5" 89 !' 4<' 7-8=' ;=<' 4<B' J55"' E8:5B!' <"B' ;594<;:' 4<' 45' J5=&57' / F<:' :4<95B' J ' <=5&>4' 4&?S :5=7' 8 ' <=5&>4' 6<:' "-' -?"&:A&5" !' <"B' -"' 45' -459' :&B5' 4595' &:' 7&9:' <' C59 ' 5=<J-9< 5' &"W85:' 8;-"' 45' <9=@:' J-B !'A-"B8A 5B' J ' 45' A-9-"59' -7' 45' A& ' -7' -"B-"' 45' R89 ' 5L<?&"5B' 45' ;95?&:5:!' <"B' :<&:7&5B' 45?:5=C5:' <J-8 ' 45' J-= :' &9' 65"' -;-"' B5:A9&J5B' 45' J89:&">' -7' 45' B--9!' <"B' 45';-:&-"'"64&A4' 45' J-B ' 6<:' 7-8"B' 45' <9=@:' :59C<" ' A-"75::5B' -' 4<C&">' J-8>4 ' 45';&:-' < ' 4&:' ?<:59@:' B5:&95!' <"B' B5:A9&J5B' 45' ?<""59' &"' 64&A4' & 6<:' A<99&5B' &"" 45' >8":?& 4' 6<:' ;9-B8A5B' &9-?' 64-?' & ' 6<:' ;89S A4<:5B!' <"B' 45'5"W8&9 ' 6<:' <AA5; 5B' ":' A-"A=8:&C5!' J ' 5C59 ' -"5' -' 64-?' A4<9>5:'<><&": ' 45' -C59" ?5" ' 6595' "- ' A95B&J=5' &"' ;9-;-9&-"' -' 45&9' 5"-9?& ' -' &" 5==&>&J=5' ?- &C5' A<"' J5' :8>>5: 5B' 7-9' 45' ?89B59' -7' <' ;9&:-"59' -7' 9<"D' 64-?' & ' 6-8=B' 4<C5' J55"' 8:578=' -' & !' <"B' 64-:5' 5: < 5:!' ?&>4 ' 4<C5' 48:' 956<9B5B' 45' <C<S 9&A5' -7' A-89 &59:" 64&=5' -' :8&A&B5$' 4595' 6<:' 45' 5?; < &-"' -7' 5:A<;&">' <' ;8J=&A' 5L5A8 &-"!' -4596&:5' <=?-:' A59 <&"!' 4"B' 45' ;9<A &A<=' B5:&95' -$' :<C5' 45' ;9-;59 ' -7' 45' 7<?&= ' 79-?' A-"7&:A< &-"' -975& 895' 6-8=B' 4<C5' 7-=-65B!' <:' <' ?< 59' -7' A-89:5!' -"' <' =5><=' A-"C&A &-"' 7-9' 4&>4' 95<:-"' 48 ' -' D&==' <"' 8" 9&5B' "-J=5?<"!' <"B' <7 596<9B:' -' ;<::' <' J&==' -7' < <&"B59' 49-8>4' 45' -8:5'-7' -9B:!' 6-8=B' 4<C5' J55"' &?;-::&J=5' -' 45' < 4-S =&A:!' -"' 45' - 459' 4<"B!' & ' 6<:' ;59S 75A = ' "< 89<=' -' :8:;5A ' <' -C59"S ?5" ' 64&A4' 45 !' 4< 5B!' <"B' -' ::<95' 45' ?5?-9 ' -7' -"5' -7' 45&9' -6"' =5<B59:' 79-?' 45' 95;9-<A4' -7' 64< ' 45 '=--D5B' -"' <:' < A9&?5

LLL"
VW3M!

&& 5L&=H! -9 &< 45 -659 45 9<AD <<B &=&5 ! W&8<9 59D7 D"&7- 6<: 599&75=5 J< ? -95 599&J=5! 9<-95 59<:J&<>! ? -95 65<9&<> - 45<9 <<B :R;E&9& ! 6<: 45 ;59;5 <<= B&:<; ;-&< ?5" - 7 =&&5&9 4-;5: 45 :8<& <"B59 < 7< <=& 64&A4 45 A<==5B 45 6&== -7 9-B! <<B A=<B5B 4< 7-9 :-<&5 &<:A9< <J=5 A<<:5 & 6<: 4&: ;=5<:<95 4< 4595: :4-< (;95C<&=

LLL"&
*M3:

LLL ?

M3M

:8AA55B 4&: ? - 459'H <"B 4&: 95: -=8 &-" 4<B <>>9<C< 5B 5C59 - 459 B&77&A8= 64&A4 4<B :- =-"> : --B &" 45 6< -7<" <A &C5 ? -C5?5" 45 5:8& :6595 ;<"&:4 J8 45 8D5 -7 8&:5 : --B J 4&: D&": ?<" 5L 8:# 6<: "- <"L&-8: - :55 4&=&;@: >95< "5: : 5"4<"A5B 789 459" 64&=5 45 < 4-=&A =<& -7 ">=<"B! 6&==&">:<: 45 ? &>4 J5 7-9 < 95=&>&-8: 95C-=8 &-"! B&B "- A<95 - J8 & < < 45 ;9&A5 -7 &"B5;5"B5"A5 48:! -" 45 C4-=5! ;<"&:4 : < 5:?5" 6595 "-6 &"A=&"5B - 7&"&:4 6& 4 45 -6 -8" 9&5:! J57-95 A<==&"> =&I<J5 4 - < 95AD-"&">! <"B <: =& =5 4<B 45 ? <B5 8;' 45&9 ?&"B: 4< 45 95AD-"&">" "55B "5A5::&P@&= J5 < &-=5" -"5 EtH

6 !. . *3 . $ 4$&" /*" &' +& 3 *(.$ @ /* " *3* $. &" . (3& 5& # 7/. ($!&3 /* !&*3 ' /.# $! $.5& ? / 7$* ! .A*3 &4 / =&! B5 *3%&3(3* 3 C $*. C = 5 %&%*. * 35&/ $ % 5* 3 3 . $$. * "!$ C $. 5 . "!$.' %&3(* 3 !&3 $ & &D& 3 ! $ &3. +. E; *%. C >% 5& F 5 %&%*. 3 $. 3 .$ C C 4 5 .3 *5.5 3 .'&!*3*&3 !$ 35.5&G %&34&$" .$ 3 &'5 %% &$'5 . 3.'5 %&%*. %&3 &' C 'G" H " !.$ %* $ * "!$ C (3 . &%. *E3'5 %&34*$" .$ 3 &' 3& & $& &'/.$F* 5 !$&% $.$? B .3 #* 3 4 G " .% $ .5& & "* *$!&$. &$. .'!.* *% .$*5.5'5 . ! $ &3. C & .! 3 !.$. %% *&3 . * (* &' &' C '5 %* !.$ % C $G #* 3' C * G* %." *3& & &'/.$F* 5 &$.5($; *5&' C * =.!. %&3 @ &' *? & %*&3 (*3* G $. .$? . 3. (@ 5 & $&' 5*4 $ 3 %% &$.%&$5F* .3 C "#.$C .4*%*&3 . 3 (&' %&3% ! & C G !$ 35.5&'%&"* &'5 *$?"*!.$ % $ 3 & I (& " &' %$*(* ! !&$ &$5 3 !$&% $.35&' !&$ .C C 3& 3& . 5 .C &'J !&$C ! 3 &' F 5 .$$*#.'*" !&$.' C 3& 5 !*3 3* 3 $& =.!. 3 & $. $.K. &$. " !$. / #* 5 .!$ $.$'E'5* .I .$'/ C $*5&' $. .$5 & 3'!$*" $.$' 3%.$.$& % 5.5&'5 !$&; % $.$' C 3&' /. . " 5.3K. < 8 2' '8 *()) 8!L' 9'X%5 *& L1) = 4 '4! . '(3' M /* &&'=/* *!'5*$ % 5 *(.$ @ &'*" !$ &3 > * & *3 !!& 5 /. '4&$* &73 .A !.*3 7& 5 # 4&$% 5 *3 &' 7.$ 7* / 3 .35'J # /* =/* *!' .*5 7. 7/& . "* .A B +&3(* 3 .%.$'G .3 *5.5 / %&3 *3 B5 3 .N&' C !.5 % 3 ! 3 .$'C &' !&$ & '$&#& . $ (*; "* 3 & 5 3 /.$F &' . "; !$ .5 "*& .#F* 5 5.$ 3; 35 $' C & &3 5* % $ & 5 . G / %/& !&$ & C / . .3 D& 3&/.3 5 !&3 $" .3& 3 3 . &#$.J C &' F &' C " %&3(* 3 %&3&@%& * *&' 5 3 . $$. 3 * 35&' &' C G" %/& ! .$'5 ($." 5.$ .5& !&$C @ &' 5 .'+/$* *.3*5.5 '5 ($'+. E *%&' .C 3&'3& .3 &' 3' $.3%

' 6<:' 985' 4<' ">=&:4'C-=8" 559:'4<B' :5&@C5B'&"' 4-8S :<"B:' &"' 45' -6' -8" 9&5:!' 4<' ">=&:4' :8J:A9&;S &-":' 4<B' ;<&B' 45&9' 5L;5":5:!' 4<' 45' &":&P &-"' 4<B' J55"' D5;' <=&C5' J' ">=&:4' 95<:895' 4595' 6595' 45' ;&9<A&5:' -7' 9<D5' -' J5' < -"5B' 7-9!' 45' 5LRH8=:&-"' -7' (5"B-I<!' <"B' 45' ;59:5A8 &-"' -7' =&5' < 4-=&A:!' -7' 64-?' 4&=&;' 6<:' 45' "< 89<=' ;9-5A -9' 5!' -"' 45' -459' :&B5!' ">=&:4' < 4-=&A' C-=8" 559:' 4<B' 7-8>4' 8"B59' -"' -4"' 45' :8;;=&5:' -' 45' ;<"&:4' <9?!' 64&A4' &"' 45' B5:-=<5B' 9-C&"A5:'6-8=B'-4596&:5'4<C5': <9C5B!' ?<&"='A<?5'79-?' ">=<"B' 7' =&I<J5 4' 4<B' J55"' &"' A-??8"&A<&-"' 6& 4' 45' 9&"A5' -7' 9<">5!' :-' 4<B' 4&=&;' 6& 4' B&:<775A 5B' ">=&:4' <"B' 9&:4' 5' 4<B' "-' 7-&@>-5"' 4&:' 5?;=-?5"!'-7' 4<;&"' & 5==&' -9' 4&:'-6"' 5L;8=:&-"' -7' -A -9' (<"!' -9!' ?-95' 4<"' <==!' 45' =-">$A-" &"85B' A985=&5:'-7' 45' "W8&:&&-"' -' ">=&:4' :5<?5"!' A-" 9<9' -' 5L;95::' :&;8=<&-"' 45' <779-" :' -"' J-4' :&B5:' 4<B' J55"' 5W8<=' 64&=5' 45' A-??59A&<=' 95=<&-":' J5 655"' 45' 6-' A-8" 9&5:' 6595' >9-6&">' &"' &?;-9 <"A5!' <"B' 45&9' 9<B&&-"<9' 95::5A' 7-9' 5<A4' -459' 4<B' "-' 5' 64-==' B&5B' <6<' =<"B5&@:'?&>4' J5' A-"W8595B_ 5' =&I<J5 4@:' <==&<"A5' ?&>4' :&=' J5' -7' &?;-9 <"A5' -' 4&=&;' 5' 6<:' A<9578=' -' =5' 45' -R 5' D"-6' 4<' :45' 4<B' <:' 5' B-"5" -4&">E 64&A4' 45' A-8=B' "-' ;<9B-"' <"B!' &7' 45' A-8=B' &"B8A5' 459' -' <::&:' 4&?!' <:' ?-95' 4<"' -"A5' :45' 4<B' J55"' -"' 45' ;-&"' -7' B-&">!' &"' 95;95::&">' 45' 95J5==&-"' -7' 45' < 5:!' 45' 4<B' 95<==

' & $& 'C ' 3&'! 3' "&.' %&3' & ' & $& '$! % & J C ' & '". '&# *;' .5&' G' .%.#.$' 5' . $.$' "*' $.' &' F'C ' 3 '" $ 3'!&$' .5& ' '%& . ' !$&!$*. ' C 'G' "; %&3% $.$ '%&3"* &' ' &' * 3 .3'!&$' !$ 35 $' . ' . 3. ' C ' !.$.' "*' " %/. ' !.$ ' '&44$ % 3'/.% $' "*;' "*' $ 3& ' ' #5* & ' #. .' %/.$' 35. ? O% < 8' !' '8' *() ')' . ' .$".5. ' 3' .' ".$'C ' .' *";' 8!L' 6 .&' B5' *&' *M32' =44' !* 3'5 '%&$.$*& ' '."!.$ 3' &'5 ' .' 4!. '(3' 35*. ' '. $ 3' .' 3.(.%*E3' 5

?<B5 8 ; 4&: ?&"B -<J<"B-" <= 4-8>4 : -7 9-8J=&"> 459 H

*M3M

">=<"B 6<: "-=->59 8" ;95;<95B -? 55 <" &"S C<:&-" -C59 45 64-=5 A-8" 9 ! &" -6": <"B C&==<>5:! 45 ;5-;=5 4<B J55" B9&==5B <"B 9<&"5B B5;-: -7 <9?: < A-"C5"&5" B&: <"A5: 6595 ;=<A5B &" A4<9>5 -7 -77&A59: 64-:5 7&B5=& A-8=B J5 95=&5B -" 45 < 4-=&A:! : &== 45 "8?59&A<= ?<R-9& ! 6595 -;;-:5B -< 6<9 64&A4 45 4-8>4 8""5A5::<9 ! &" J54<=7 -7 7-95&>" 9- 5: <" :" J8 ! 6& 4 45 A=-8B -C59 45 :8AS A5::&-"! 45 >95< 59 "8?J59 -7 45?6595 <:B5 59?&"5B -: <"B J 45&9 -6" :-C595&>" <><&": <&:4 &"S C<:&-" <: 45 6595 8"6&==&"> -& 597595 J5 655" 4&=&; <"B 4&: -6" :8JR5A : 4&=&;! -" 45 - 459

Ḧ ℚ -?- ;<:<B- 5: < -A<:&Z" ;<A&7&A<B- # (/K A-" <W85==< 5 "<! W85B5" 5 59"<=?5" 5 ;9-:A9&; <: =<: A-:<: B5 ">=< 599< ;<9< "-; -B59:5 ;5":<9 5"" 5==- @_ , *$ * 6 ' * (L I '$!*(' : $- (' *+($ 8!L' 9 '()' 4 V$+ 5J 1! *M32 = 44 4! . '(3'

M . !.! $&4 /* 5. # .3 3A3&73 /.35 %&3 .*3 % $*& (*; 5 3% &4 / " ! $&4 / 3 * / ! &! .35 &4 / .5"*$. *&3 7/*%/ 7. (*5 3 4 4&$ / !.3*.$5

B / ! &! &4 /* $. "/.(# 3 . 7. 4& 35 &# . " & (. *.3 3.; *&3 & / " &3 * * *(3 # 8&5? ! %*. *4 / &4 / /&7 J. & / /.(# 3 . 7. .35 . /* !$ 3 # .4$! &! %/ . *3 4 7 &$ 3& & / $ $. " / .4*35 / *A J# / 7/*%/4$ 5&"7* /; & . 5& # * " .*3 .*3 5 / $ . .35 (. *.3 %& $. &4 0 / .*5 ! &! .35 3. *&3 / .%A / $ &4 " 3 5 #$ 5 . / .$ .35 7$ %/ 5 ! &! .35 7/. " . 4& &7 &4 %/ . /*3 . 7* " 3 5& * * I

B * / / * ! &! &3 / : *3 &4 / * $. " /.(. 7. /&3& $; .# 5 4 35 5 / . " .35 /.(" .5 / *$7. $ *3 4&$ * 3 $. " .35 5&3 (. *.3 .% / $ .35 " .5 $. %&3C / " "&$ &4 7/*%/ %.33& # # & 5 & *3 *" / $ 4&$ / ! &! / . # (. *.3 .35 5& " / *$ /&3& $ 5& . $ / *$4.* /4 $(% & / *$!$*3% . # >! $* 3% * * 3 # . 3. *&3 3 5 3& $ / .$

B / # 7 A3&73 7/*%/ .35 & " %/ !&3 / *$/&3& $.35 $! ; . *&3 & 5& 7 / . # 3& " .3 / % .3 # . $ 5 4$& " * 7/ $ # / *$: *3 * * " & . $ 5 &4 / *$ 4*5 * * &7.$5 /*" . 5& /7 .!! .$ # / $ . .35 /&3& $.# %/.$ %& " * 5 & / " *3 " .3 .35 35$ $ *&3 4.$ 5* .3 4$& " /* " J .35 /&7 4.* /4 / 5 . * " & " .3*4 .35 / &3 .35 ! %*. %. &4 / *$ 4*5 * * * # / *$ $. * " . *&3 &4 / *$ /&; 3 .35 $! . *&3 4&$ / " .*3

4<"B! B5:A5"B5B' 79- ?' -4"' -7' <8" ' <"B' -"A5' <=95<B ' LLL&"
& 8=<9' &">' -7' ">=<"B! 45' "5<95: ' < 4-=&A' &"' J=--B' *M3M
<7 59' (<9 ' 8<9 ! 4<B' "-' 6&:4' -' ;9-C-D5' >9< 8& -8:= '
45' 4-: &=& ' -7'<' ;5-;=5' -' 64-?' 45' ?&>4 ' <><&"' -7759'
4&?:5=7'<:' :-C595&>"' 64&=5' 4&:' :&: 59$&"$=<6' 6<:' 5W8<== '
<C59:5' -' <' W8<&@95=' "-' 7-9A5B' 8;-"' 459' &"' :5=7$B575"A5!'
7-9' 45' &" 5&@5: :' -7' 64<' 6<:' A<==5B' 95=&>&-"
5=&>&-"' -' =&I<J5 4' 6<:'<' C59 ':&?;=5' ?< 59' 45'
4<B'<' A-??-"$:5":5' ;59A5; &-"' -7' 45' 95=< &-":' J5 655"'
45' 6-9=B' <"B' &:' (<D59' 45' B5 <&=5B' <9 &A=5:' -7'
A955B:! :<A9<?5" <=' ? : 59&5:!' <"B' - 459' @:A45?5:' -7'
@:<=C< &-"!@:59C5B' -' C<9 ' 45' C-A<J8=<9 ' -7' 459' -< 4:!'
J8 ' 6595' &"' 45?:5=C5:' ;9-7-8"B=' B8J&-8:' -' 459'
45' B5:;&:5B' 45' J&>-9 ' 64&A4' &":&: 5B' -"' ;95A&:&-"'
-7'6?9B:!' -"= '=5::' 4<"' 45'5L<>>59< 5B' :A98;8=-8:"5::'
64&A4' ?<B5' ?5"' 6&==&">' -' B&5' 7-9'<"' -;&"&-" ' -9'
45' 7--=:' 64-' 95W8&95B' 45-=->&A<=' 7-9?8=<:!' 45' =<6'
;9-C&B5B' <' 9& 8<=' 95:;5A <J=5' J ' <" &W8& !' <"B' :45'
A<95B' J8 '=& =5' 7-9' 45' :4<B5:' 64&A4' B&: &">8&:45B' ">S
=&A<"&:?' 79-?' < 4-=&A&:?!' :-' =-">' <:' 4595' 6<:' "-'
"W8&:& &-"' -' ;9 ' &" -' ?5"@:' A-":A&5"A5:' 45' 7&59 '
&"B&>"< &-"' <><&":' 7<=:54--B!' 45' 75<9' -7' 89"&">' 45'
:59C&A5' -7' -B' &" -' <' =&5' 7-9' ;59:-"<=' -9' ;-=& &A<=' A-"S
C5"&5"A5!' :45' B&B' "-' 8"B59: <"B' 45' :59C&A5' -7' -B!' &"'
45' 5A4"&A<=' :5":5!' :45' ;594<;:' A-":&B595B' <"' &":-=8J=5'
;9-J=5?' <"B' 645 459' ?5"' 65" ' -' ?<:' -9' 65" ' -'
A489A4!' :-' =-">' <:' 45 '78=7&==5B' 45&9' B8 &5:' <:' A& &I5":!'
:45' 95><9B5B' ?595=' '<' C<9&5 ' <:' -7'7-9?' 45' ;9-4&J& 5B

3.3% ' &4' 7/*%/' / ' .$ ' .7. ' 45?' &"' 7&5=B' -9' 4-=B' 45' <95'
$ .5 ' &' ! 5 ' / *$' *(' $./ $' <=6< :' 95<B '7-9' 95J5=&-"!'7-9>5 &">'
/.3' & ' .3 ' D& ' / $ &4' &' *' 45&9' B8 ' -' 45&9' 9&"A5' <"B'
" ' 3 5 ' 4& &7' /.' /. "*35 5' -??-"65<=4
" 3'# ' "& ' . * '7&3'4$&"' / *$'
5 ' &' / *$' =$*3% ' .35' / *$' # ' 5A' *M3M'
%& 3$ ' / $ ' * ' 3&' . $.3% ' &4 $ %

?<:: &" ">=<"B J5A<8:5 & 6-8=B 4<C5 =5B -B&: 89JS
<"A5 -9 45 :<?5 95<:-"! 4<B :45 J55" %855" -7
*M3M 9<"A5! :45 6-8=B 4<C5 ;9-4&J 5B 45 8>85"- :
:59?-": &9A8?: <"A5: 9< 459 4<" G&957595"A5 4<B
;=<A5B 459 -9&>&"<== -" 45 :&B5 -7 45 9-5: <" :
59 A-""5L&-" 6& 4 45?6<: ;-=& &A<=! <"B & 6<:
-"= 645" :45 "55B5B 45&9<::&: <"A5 4< :45 <AD"- C$
=5B>5B <A-??8"& -7 A955B & 4 45 W8<"95= 6& 4
-?5 :45 6<: &B5" &7&5B 79-?459 J&9 4 59 ?-459@:
?<99&<>5 4<B A<8:5B 45 98; 895! <"B 45 958"&-" 8"B59
459 :&: 59 4<B J55" <AA-?;<"&5B J 459 -6" B&:>9<A5
8 6& 4 45 A955B <: B&: &"A 79-?45 <;<= 8;95S
?<A :45 4<B "-W8<995= < <== (<::<"B 95C&<9 !
<AA-?;<"&5B J "< &-"<= &"B5;5"B5"A5! <"B =&J59 "-
-7 6-9:4&;J8 -7 A-":A&5"A5! 6-8=B 4<C5 :8& 5B J5:
k 6&4 459 -6" <: 5: 45 4<B 5: <J=&:45B 45 "5<95:
<;;9-<A4 -& C=&&A4 459 ;-:& &-" 6-8=B <==-6! <"B
:45 4<B "-?-95 ;=5<:895 4<" 4&=&;4&?:5=7 &" :55&">
45 ;5<A5 -7 89-;5 B&: 89J5B! 4< 45 ;9&5: < 45
<= <9 ?&>4 J5 :8;59:5B5B J <= <=C&"&: &" 45 ;8=;&
48:& 6<: 4< :45 4<B J55" :-& "B&77595" -45
95C-= 5B 5 459=<"B:! <"B 4< 459 ;-:& &-" -6<9B:
45?6<: :-A89&-8:= A-?;4A< 5B 45 4<B 6&:45B
-:55 45?;<"&:4 J8 :5=7$>-C59"5B 45 95=&>&-8:
957-9?<&-" &99& < 5B 459 <: "55B=5::= ;59;=5L&">45
95=< &-":J5 655" 45?<"B 45&9 -C595&>" -==S
=<"B <"B T5<=<"B! -" 45 - 459 4<"B! 45 95=&>&-8:
957-9?<&-" 6<: 45 <==&" <== -4<C5 B-"5 6& 4 5:!
-J5 <J=5 -:59C5 -B 6& 4 4-"5: <"B :&"A59& !<"B
"-$6&4 5775 5 4 ;-A9&:&5:! 7-9 4&: <"B -"= 4&: 45
4<B J5>8" <"B A-"&"85B 45&9 B5:;59< 5 : 98>>=5
45 A-8=B 4<C5 4<B ;5<A5 < <" ?-?5" !;5<A5! 6& 4
5C59 :5A89& 4< 45 A-8=B B5:&95! 6-8=B 45 4<C5
A-"A5B5B 4&: :&">=5;-&" J8 45 6-8=B :--"59 4<C5
J89&5B 45?A-8" 9 &" 45 -A5<"! 79-?64&A4 & 4<B

J55"' A-"W8595B!' 45 ' 6-8=B' :--"59' 4<C5' J5A-?5' ;9-S
C&"A5:' -7' 9<"A5!' &"' :;& 5' -7' =5"^-"' <"B' 45' " 659;'
95<A459 !' 4<"' :<A9&7&A5' 45&9' :;&9& 8<=' 7955B-?'' <"B' *M3M
=&I<J5 4' A-8=B' "5& 459' =5 ' 9<"A5' 4<C5' 45?' 5LA5RR '
-"' 59?:' 64&A4' 9<"A5' 6-8=B' "-' <AA5zF !' "-9' <==-6'
45?' -' J5' A98:45B' J ' ;<&"' 7-9' 75<9' -7' 45' <AA-8" '
64&A4' ;<&"' ?&>4 ' "5L ' B5?<"B' -7' 459:5=7' 45' "5& 459'
A<&@5B' 7-9' 45&9' <=C&"&:?!' "-9' A-8=B':45' 95A->"&:5' =&J59 '
-7' 6-9:4&;!' 64&A4' :45' 459:5=7' 9578:5B!' <:' <' =5>& &?< 5'
;=5<' 7-9' 95J5==&-"' 5 ' :45' 6<:' A-?;5==5B' -' :8;;-9 '
45?' &"' <' 95C-=' 64&A4' ?5<"' 5& 459' 4<' -9' "-4&">'
45' A-8=B' "-' 5C5"' =5<C5' 45?' <=-"5' -' A-?;-8"B' 45&9'
-6"' W8<995=' 6& 4' ;<&"!' 5C5"' -"' 59?:' 64&A4' :45' 6-8=B'
459:5=7' 4<C5' <;;9-C5B!' =5:' &"' 45&9' 95:5" ?5"' <' 459'
B5:59 &-"' -7' 45?' 45 ' :4-8=B'R-&"@6& 4' ;<&"' <><&":'
459' 45!' 64-' B5:;&:5B' 4a&9':A98;8=-8:"5::!' 6<:' A-?S
;5==5B' -' J5A-?5' & :' ;< 9-"' <"B' :45' C9& 45B' &"' 45'
8">9< 578=' :& 8< &-"!' : 9&C&">' J ' 5C59 ' :=5&>4 ' <"B' 9&AD'
-' 5:A<;5' 459' -J=&>< &-":' ' 95"A4' <9? ' C-8=B' 4<C5'
J55"' <' 98::5=:!' J8 ' 7-9' 45' =&?& < &-":' 6& 4' 64&A4'
:45' 4<B' 5?;5B' 45' < 5:' -' 5?J<99<::' 45&9' -7759' -7'
45?:5=C5:' -' 459' "5&>4J-89' 45' 4<B' J-8"B' 459:5=7'
-' 45=;' 45?!' &7' 45 ' =-:' 45' 45=;' -7' 9<"A5' &"' A-"S
:5W85"A5'' <"B' 45 ' 4<B' =-:' & !' <"B' :45' 6<:' A<==5B' -"'
-' 78=7&=' 459' 5"><>5?5"

:' 8:8<=!' :45' 95A-":&B595B' 4a' 5" &95' W85:&-"' 8;-"'
& :' ?59& :!' <:' &7' "-' ;9-?&:5' 4<B' J55"' ?<B5

45' < 5:' 6595' 6&==&">' <"B' &"B55B' 5<>59' -' J5' <"S
"5L5B' -' ">=<"B ' 45' <AW8&:& &-"' 6-8=B' 4<C5' J55"'
<' :;=5"B&B' A-?;5":< &-"' 7-9' 45' =-:' -7' <=<&:' 45'
H8"& 5B' 7=55 :' -7' ">=<"B' <"B' -==<"B' 6-8=B' 4<C5' J55"'
:8;&@5?5' &"' 45' 4<""5=!' <"B' 6-8=B' 4<C5' 98=5B' 6& 4' 8"S
B&:;8 5B' :6< ' -C59' 45' D"-6"' :5<:' 8 ' & ' ;9-?&:5B'
&" 59?&"<J=5' 6<9_ 6<9' &? ?5B&< 5=' 6& 4' ;<&"!' -' 64&A4'
"-' 5"B' A-8=B' J5' 7-95:55"!' <"B' 6<9' :--"59' -9' =< 59' 6& 4

9<"A5! 64&A4 6-8=B "- W8&5 = :55 ">=<"B J5A-?5 <><&"< A-" &"5" <= ;-659 5 6<9 6& 4 ;<&": 55?5B 5W8<== &"5C& <J=5 &7 45 ;9-C&"A5: 6595 95A-"W8595B 5?<"B: 6-8=B 8"W85: &-"<J= J5 ?<B5 8;-" 45 %855"! 64&A4 ?8: J5 5& 459 :8J?& 5B -9 95:&: 5B! <"B 64&A4! &7 :8J?& 5B -! 6-8=B &"C-=C5 48?&=&< &-"! B&:>9<A5! <"B ;9-J<J= <"& 59"<= 95C-=8 &-" ">S =<"B 6-8=B "- J5 ;59?& 5B -95?<&" 45 4<9J-89 <"B "89:59 -7 4595: " <"B! 8"=5::: :45 6<: ;95;<95B -<J<"B-" 9- 5: <" &:?< =->5 459! 45 <= 59"< &C5 =< J5 655": :55D&"> 6<9 J-=B= ! 64&=5 45 9-C&"A5: 6595 4-=B&"> -8 -9 6<& &"> -?55 & :&">=5$4<"B5B < 4-?5

">=&:4 :5<?5"! 64- 4<B J55" 7&>4 &"> ;<&" <: ;9&C< 559: 7-9 65" 5<9:! 45=B & :;-659 5L 95?5= A45<; 4&=&; -45?6<: Ø< -=-::8: :8775B 6& 4 Ø A=-8 : @Ĥ <=7 45 :<&=-9: -7 45 5"&":8=< 65" <""8<== -45 567-8"B=<"B 7&:459&5:" <"B &9 -4" <6D&": ;9-;-:5B! <: - 459: 4<B B-"5 J57-95 4&?! -B5: 9- 45?<==< <<:&">=5 :6--;! A9&;;=5 45 ;<"&:4 ?<9&"5 7-9 5<9:" <"B =5<C5 45 ><==5-": -9-&" 45 4<9J-89: 7-9 6<" -7 4<"B: -?<" 45? Ĥ =&I<J5 4! 4-65C59! 4<B C&56: -7 459 -6" 45 D"56 4< 4&=&; 6<: =5:: :<C<>5= &"A=&"5B -6<9B: 459 4<" <=:&">$ 4<?: :8;;-:5B! -9 :45 95><9B5B 6& 4 =5:: <=<9?: 45 ;-::&J&=& -7 <A-?;9-?&:5 6& 4 4&? Ø 59 (<R5: !@ <: (H>89 :<&B! Ø 4<B <6&== -7 459 -6"! R-&"5B 6& 4 Ø <"-;&"&-" 4< :45 :<6 789 459&" -4-:5 <A &-": 4<" Ø 459 64-=5 -8"A&=! <"B 6-8=B "- J5 <BC&:5B @O

45 D5; <C&:-" < 45 <>85 95<B -<D5 <BS C<" <>5 -7 45 B&:?< 64&A4 6-8=B J5 A95< 5B J 45

Ĥ 59=5 - 89> 5 ! 8= *,! ;<&"! ;9&= *M3M _ = 44 :!)
M3M _ = 44 5. $!3 Ó 59=5 - 8&>4=5 ! 8= *,
Ķ =- 7-9 <""- &"> 45 &"> -7 = 44 :!)

9578:<=' -7' 9<"A5' -' &" 597595'' :45' <" &A&;< 5B' 4<' 45' < 5:' 6-8=B' "-6' ?<D5' -C59 895:' -' 459' :-' ;95::&">' 4<' :45' A-8=B' B&A < 5' 45' A-"B& &-":' -7' 459' <::&: <"A5 H' 45' :5<$ -6":!' 64&A4' 6595' -' 4<C5' J55"' ?<B5' -C59' -' 459' &7' 45' 9-C&"A5:' 4<B' J5A-?5' 95"A4!' :45' ?5<"' -' :5A895' <' <=' 5C5" :' <"B' <:' <' :5A89& '7-9' 45' 78=7&-?5"' J' 45' < 5:' -7' 45' -J=&>< &-":' -' 64&A4' :45'&" 5"B5B' -' 4-=B' 45?!' :45' 95W8&95B' =8:4&">!' 9&==!' <"B' "A$' 48:5"' -' J5' ;8' &" -' 459' 4<"B:!' -' J5' 45=B' J' ">=&:4' ><99&:-":' 4<!' <' 45' J- -?' -7' 459' 45<9!' :45' 4-8>4' -7' B-&">' 6& 4' 45:5' -6":' 6&==' J5' :55"' 4595S <7 59' 45' 95><9B5B' 45?' <:' 45' ;9-;59 !' &"' : 9&A S "5::!' "-' -7' 45' < 5:' J8' -7' 4&=&;'' <"B' 4&4;' 4<B' 95<:-"' -' J545C5' 4<' :45' ?&>4' ;594<;:' <::&:' 4&?' -' 95A-C59' 45?

6&A5!' <=95<B !' :45' 4<B' J55"' -"' 45' ;-&"' -7'&" 59S 759&">' -"' 45' ;<"&:4' :&B5!' <"B' 45' -AA8;< &-"' -7' 45:5' ;=<A5:' ?&>4' J5' <' :5;' -6<9B:' 45' 95: -9< &-"' -7' 45?' -' 4&?:5=7 H' '&:' "-' -' J5' :8;;-:5B' 4<' :45' B&: &"A = ' ?5B& < 5B' B-&">' 4&:!' J8' 45' ;-::&J&=& '7=-< 5B' J57-95' 459' ?&"B' 45' ;-::5::&-"' -7' 45' -6":' 6-8=B' >&C5' 459' 45' A-??<"B' -7' 45' :& 8< &-"!' <"B' 5"<J=5' 459' <' -"A5' -' ?<D5' 59?:' 7-9' 459:5=7!' <"B' -' B&A < 5' -' 45' < 5:

45' 6<:' B5?<"B&">!' <' <" ' 9< 5!' 45' A-" 9-=' -7' 45' 64-=5!' :5<J-<9B' -7' 45' < 5:!' <"B' 45&9' ;<:' 95=< &-":' 6& 4' 459' 4<B' "-' J55"' :-' :< &:7<A -9' 4<' 45' 6595

K (' 9' <C&:-"' ?8:':-' 4<"B=5' 45' ?< 59' 4<' 45' < 5:' :4<=' 4<C5' 95A-89:5' -' 459' (<R5:' 7-9' 95=&57!' "-'<:' &7' :45' 459:5=7' 6<:' &"' <" ' B&7$' 4A8=' -9';59&=!' 4<':45' ?<'?<D5' 45' J5 -9' 59?:(< ($ +3$!* .' $*' = ' + .'.' (<9A4' 3$*3' = 44' *8I 8'()

K (-' 4<' 45A4-=<' 5 "<' B5' "$' >=< 599<' -75":<' W85' "-' :5' =5' ;85B< ?8' J&5"' ;59B-"<9=5!' 4-9<' W85' :5< &": 98?5" -' B5' 95B8A&9' <W85==<:' :=<:' A4Z=5' 5"' =<:' -95R<:' W85' :5' 5" &5"B5' W85' "-' 5: Y' =5R-:' B5: -' <W85==<' =5R&"<!' "5' < <' W859&B-' A-"' - &&-' 7&"' ;-"59' ;&`' 5"' =<:' :=<:!' :&5"B-' 5=' ;9&"A&;<=:8 -' <:5>89<9:5' W85' # ' (<>KK' =5' B5L5' 2 ((L' 9'8' 2'1'B5' 5J959-!' *M 2' = 44' 4!.'(3'

$\&"A=&"5B - ;=<A5 45&9 7-9 8"5: &" 459 4<"B: 45
 6595 45<9 &= <"L&-8:! 45 :<&B! - >&C5 459 45 :-S
$*M3: C595&>" -7 45 ;9-C&"A5: 45 6-8=B 45" J5 79<"D=
<"B A-?;=5 5= 5?J<9D5B &" 45&9 A<8:5! <"B 45 6-
"<&-": 6-8=B J5A-?5 -"5 &" 45 8"&-" -7 < A-??-"
7<& 4 J8 - ;<9 C9& 4 45 -6": ?&>4 J955B W8<995=:!
:8:;&A&-":! <"B A<C&=: !H 57-95 :5"B&"> 7-9?< A-?S
?&::&-"59:! 45 <5: ;9&C< 5= 75= 45&9 6< 6& 4 459
 45 ;9-75::5B 459:5=7 5L 9<-9B&"<9&= 95:--=8 5 - <::&: '
 5 :45 : &== <B4595B - 459 ;-&" ! <"B 45 <5: :498"D
79-? >9<" &"> & " < <AD 6<: - J5 ?<B5 -" 45
 9&"A5 -7 <9?<: :&5>5 6-9D: <"B 45 J9&B>5 -C59 45
 A45=B ! 79-? 64&A4 >95< 95:8= : 6595 <" &A&;<5B - 4
;<9 &5: 6<& 5B - :55 64< 5775A : 6-8=B 7-==-6
6<:<:;=5"B&B 577Z9 <7&95:4&;! :5" B-6" 79-? " S
659;! :4< 595B 45 J9&B>5 <"B J=56 < 4-8:<"B ;<S
"&<9B:&" - 45<&9 J8 <9?<: A--="5:: 89"5B B&:<: 59
&" - C&A -9 45 J9&B>5 6<: :5<=5B <><&"! <"B 06& 4 &
 45 7< 5 -7 45 J5=5<>8595B A& ! 8"=5:: <" <9? A-8=B
7<D5 45 7&5=B 7-9 & : 95=&57 45 "5:9- &<&-" 6<: 95$
:8?5B! <"B =&I<J5 4 95;5< 5B 459 59?: 5"B 8: 7&C5
4-8:<"B ?5" <"B :<C5 " 659;! 45 <5: :<&B! <"B
45 64-=5 A-8" 9 :4<== J5 -89: 7-9 5C59 H B- "-
6<" 45 A-8" 9 ! =&I<J5 4 <":6595B! <"B $6&= "-
4<C5 & ' J8 <? 6&==&"> - J5A-?5 -89 ;9-5A -9
&7 -8 6&== >&C5 ?5 -89 -6":H 59 95<A459RH! &7
:45 &" 5"B5B &! 6<: <:5A95 64&A4 :45 D5; - 459:5=7
 45 95C-= 4<B "- -9&-8:= J55" :8;;-9 5B J ">=&:4
?-"5 4<=7 45 <5:@ <9? A-":&: 5B < 4< ?-?5"
-7 ">=&:4 C-=8" 559: 45 -C59 895: -7 45 <75:
- 45 %855" 6595 W- -9&-8H - 45 6-9=B 6<:

) . /) *N _ =44 :!)
2$*2 _ =44 *8'() O <=:&">=&<? - &=;&"! (<,$
. / - ' (N$ V <=44 :!)

5W8<== ' "- -9&-8:' 4< ' :45' 6<:' 95< &">' 6& 4' 45?!' <"R&
4&=&;' B5 59?&"5B' -' 79&>4 5"' 459 ' "' 8"8:8<=!' "8"H$ mm m
459' -7' ">=&:4' :4&;:' 6595' &"' 45' 4<9J-89:' -7' ;<&" ' *M3M$
45' A-9"' 7<?&"5' A-" &"85B' &"' <==&A&<' <"B' L "B<=8:&<!'
<"B' C5::5=:' J9&">&">' 645< ' 4<B' J55"' &"C& 5B' -C59' 6& 4'
:;5A&<=' ;9-?&:5:' 4< ' 45 ' :4-8=B' J5' 7955' 79-?' ?-=5: <S
&-" ' "' 45' .N 4'$-7' (< ' <' :8BB5"' -9B59' 6<:' &::85B'
< ' (<B9&B' 7-9' 45' <995: ' -7' <" ' ">=&:4' :4&;' 8;-"' 45'
A-<:!' 45' &?;9&:-"?5" ' -7' 45' A956:!' <"B' 45' <;;9-S
;9&< &-"' -7' 45' C5::5=:' <"B' 45&9' >8":' -' 45' 9?<B<'
64&A4' 6<:' &"' ;95;<9< &-"' < ' <B&I H

45' A-??<"B' 6<:' >5"59<== ' -J5 5B ' 8"B95B:!'
;9-J<J= ' 4-8:<"B:!'K-7' ">=&:4' :<&=-9:' <"B' ?59A4<" :'
6595' 9-JJ5B' -7' 45&9' :4&;:' <"B' >--B:!' <"B' :5" ' -' 45'
><==5 :' -9' -' 45' B8;>5-":' &"' 5C&==5 H' (89' A-8" 9 $'
(?5"' <95' : P=' &"' ;&E&:-"!(69- 5' <"' ">=&:4?<"!' :-?5'
?-" 4:' =< 59!' (<"B' &"' >95< ' ?&:59 ' 5LA5;' 4595' J5'
(J5 59' -9B59' <D5"!' J5 59' 7-9' ?5"' -' : < '<' 4-?5' 4<"'
(9<&:5' 45' ;9&A5' -7' A-9"' &"' -89' A-8" 9 ' -' J9&">' &' 4& 459'
(-' :-' 8">9< 578=' <' "< &-" @H ' 756' :4&;:' -"= ' J ' :D&=='
-9' A-8L(<>5' A-" 9&C5B' -' 5:A<;5!' 45' 9&?9-:5!' -7' -"B-"!'
4<C&">' 45' :&">8=<9' 7-9 8"5' -' J9&">' 4-?5' "-' =5::' <
;59:-"' 4<"' 45' -995>&B-9' -7' &:A< ' 4&?:5=7' 45'
9&?9-:5!' 6& 4' <' A956' -7' 7-89 55"' -9' 7&7 55"' 4<"B:!' 6<:'
= &">' &"' 45' 9-<B:' < ' &=J<- ' 45' -995>&B-9' 4<C&">'
95A5&C5B' 4&:' -9B59:' 79-?' 4&=&;!' 65" ' -"' J-<9B!' <:' &7' -"' <
79& X"B= 'C&:& ' -' 45' A<; <&" ' 5' =--D5B' <J-8 '4&?" :< (
45' :4&;!' <:' 45' &?<>&"5B!' B575"A5=5::!' <"B' <7 59'95 89"&">'
-' 45' -6"' 95 89"5B' 6& 4' C-' -9' 4955' J-< =-<B:' -7'
:-=B&59:!EK' A<?5' -"' VB5AD!' 7-==-65B' J ' 4&:' ;5-;=5!' <"B

H' 9B59:' -' 45' -995>&B-9' -7' &:S K' BC59 &:5?5" :' 79-?' ;<&" _'
A<!' (< ' .N' _ =44 ' 1 .!(:!) ' /
K' BC59 &:5?5" :' 79-?' 5C&==5!' kK(45' A<; <&"' :< :' 4955' -9' 7-89'
-C' .. _ =44 ' :!) ;&""<A5:!' ?<""5B' 6& 4' 4&9 ' ?5"

Q'

&ALL ?

*M3M
8"5

<D&"> 45 A<; <&" J 45 <9? -=B 4&? 45 6<: <
;9&:-"59 45 A<R <&"! 64-:5 "<?5 6<: -: 59! :4--D
4&?:5=7 7955 <"B :4-8 5B - 4&: A956 - B575"B 45?S
:5=C5: H"< A4&"> 45 7&9: 65<;-": 4< A<?5 - 4<"B!
<L5:! ;&: -=:! A8 =<::5:! J-<9B&"> ;&D5:! 45 ?5" 7=8">
45?:5=C5: 8;-" 45 ;<"&<9B:H ;& A45B 45? -C59J-<9B!
489=5B : -"5: 8;-" 45? <: 45 A9-6B5B B-6" &" -
45&9 J-< :! A=5<95B 45&9 B5AD: -7 45? 5C5" -9
5&>4 6595 D&==5B (<" ?-95 75== 6-8"B5B &" - 45
:5< 45 -995>&B-9 4&?:5=7 J5&"> 49-6" 6& 4 - 459:
&" - 45 6< 59! 48"> - <9-;5! <"B 6<: <D5" 8; 645"
45 7&>4 6<: -C59 45 A<J=5 6<: &": <" = A8 ! 45
:<&=: 4-&: 5B! <"B &" <756 ?&"8 5: 45 9&?9-:5 6<:
-" 459 6< - 45 4<?5:! 6& 4 45 7&9: -77&A59 &"
<==&A&< ;9&:-"59

45 "56: -7 45 <995: 6<:95A5&C5B &" ">=<"B 6& 4
B55; 95:5" ?5" <B :8A4 < ?5<:895 J55" 95:-9 5B
- &" 95 <=&< &-" 7-9 45 ;=8"B59 -7 9<D5! 45 R8: &A5 -7
& 6-8=B 4<C5 J55" 95A->"&:5B J8 45 :4&;: < ;95:5"
<D5" 4<B J55" 5"><>5B -" 64< 6<: :-?5 4&"> =&D5 <
?&::&-" -7 A4<9& ! <"B 4<B J55" 5?; 5B-C59 J :;5A&<=
;9-?&:5: -7 :<75 5 59: -7 95;9&:<= 6595 &::85B
&? ?5B&< 5= - 45 ?59A4<" :!<"B 7-9 45 7&9: &?5 45
&B5< -7 < 6<9 6& 4 ;<&" J5><" - J5 &K5<= ;-;8=<9
45 ;5-;=5 "5& 459 8"B59: --B "-9 A<95B 7-9 45 &" 9&S
A<A&5: -7 B&;=-?<A ! J8 45 A-8=B A-?;9545"B C59
65== J9-<B <"B 7=<>9<" 69-"> C5" 9<B5 & :5=7! &
6<: 4-8>4 ! 6-8=B ;59&:4 &7 45 -C59"?5" 6<" 5B
:;&9 - B575"B ;=8"B595B :8J R5A : -9 459 (<R5: :
95<:-"! 69- 5 <A-995:;-"B5" -7 89>4=5 ! 4< :45
6-8=B "- 5" 59 &" - < 6<& 7-9 B&:;=5<:&"> -7 459

<;&5A5 45 -995>&B-9 :< : 6- !(7 '. 8"5 N$*N!9M3M = 44 '5)
J-<:! -"5 6& 4 .F -9 .1 ?5"! 45 . $! L<?&"<&-"-7 45 -995>&B-&
- 459 6& 4 ,-9X <4+ V $* !'8D J57-95 &9 &==5>956 = 44 :!)

Q ;5-;=5' 4<' 4<C5' =&C5B' :-'!=-">' &"' ;5<A5!' &' &:' C:B 4' 459' LLL&"
Q 4&>4' 7<C-89' "-' 95<:-"' <' <== ' 45' ;5-;=5' >5"59<== ' %
Q B5:&95' 4&:' 6<9' <:' R8:' <"B' "5A5::<9 !' <D5"' &"' 9&;5' 48"5
Q :5<:-"!' <"B' 6&==' 4<C5' 4-:5' 4<' &?;8>"' &' <H(5"5?&5:'
Q -' 45&9' A-8" 9 !' A-"B5?"&">' 45?' -7' B-&">E-9' ?<=&A5'
Q -9' J-4@H 45' -;;-9 8"& '-7' 45' -6@ -8" 9&5:' J5A<?5

' &==&<?' 59=5' -' 89>4=5 !' =8=' '<"B' :<&B' 4<' 45' %855"@:' A-=B"5::' *,$.,_ =44' 5*. $!3' &==&<?' -' 45' &">' -7' <C<995' 4<B' J55"'
59=5!' 45' 69& 59' -7' 45:5' 6-9B:!' 5A&=E:' 6-9D!' <"B' 45' 5;8 &5:' 79-?'
6<:' 45' ;59:-"' 64-' 7-89 55"' 5<9:' 45' < 5:' J5=&5C5B' 5W8<==' 4<'
J57-95' 4<B' J55"' 5?;=- 5B' ?' 45' "-' 45' 6<:' 8"7<C-89<J=5' -' 45' A<8:5'
C59' 4-"-89<J=5' -77&A5' -7' <:;'-"' -7' 45' 5 459=<"B:' C5"' 4&=&;'
45' <4-=&A' ;9&:-"59:' &"' 45' (<9$' A89&-8:=' &?<>&"5B' 4<' 45' 4<B' <'
:4"=:5<' 5' 4<B' J55"' 5">5B' :8JS 79&5"B' &"' 4&:' ?-:'A-":<"'5"5? !'
:5W85" =' &"' A-=5A &">' &"7-9?<&-"' <"B' 645"' <' =&:' 6<:' ?<B5' -7' 45'
&"' 95=<"B!' -=<"B!' 9<"A5!'<"B' 59S ">=&:4' ?&"&:59:' 64-' 6595' -' J5'
?<" !' <"B' 4<B' J55"' :-' 8:578-' <e"B 4<"5B' -"' 45' :8AA5::' -7' 45' &"S
<AA89<5' 4<' 89>4=5' 4<B' 8"8:8<' C<:&-"!' 4&=&;' :98AD' -8' 5A&=@:'
A-"7&B5"A5' &"' 4&?' 5' 6<:' J54&"B' 8<?5' Q 5A&=!@' 45' 6@@-5!' Q"-' &?S
45' :A5"5:' &"' 45' %855"@:' <9 &7&A5:!' -7' ;-9 <9X<' <"-!' <&?W85' >9<"' 4595>5'
?<" '-7' 64&A4' 45' 4<B' J55"' 4&?:5=7' 5:' ?8' C&5R-' '5=' W85' <A-":5RZ' =-:'
45' &": 98?5" ' 5' 6<:' 5<>59!' =&D5' 9<' -:' A-"' 5=' 9&"A&;5' B5' <99<<@_'
?-:' 65=' &"7-9?5B' ">=&:4?5"!' !& 'C-=' #';'F,3' 5'<AA-9BS
4<' :45' :4-8=B' <D5' 8;' 45' A<8:5' -7' &">' -' 5A&=4&?:5=7"-'?&: <D5' A-8=B'
45' -6' -8" 9&5:!' <"B' &"' ;95::&">' 4<C5' J55"'>95< 59' 5' 4<B' -'48?-89'
&' 8;-"' 4&:' ;<9-"!' 45' ;9-C-D5B' < 45' %855"' &"' -9B59' -' D55;' :-?5' A-"S
A-995:;-"B5"A5' 64&A4' 49-6:' 95S 9-=' -C59' 459!' J8' 45' 6<:' B55;=' 489'
?<9D<J=5' =&<$4' -"' 45' A4<9<A 59' -7' J' 45' :8:;&A&-"' 4<' 45' 6<:' 8" 985'
5A&=' 4&?:5=7' 45' -9B' 95<:?$59' -' 45' A-??-"' A<8:5' (' Z>89!' 45'
6<:' J5=&5C5B' J' 45' 6-9=B' -' 4<C5' :<&B!' 4<B' B&:A-C595B' 4&:' -6"' 599-9!'
5"A-89<>5B' =&I<J5 4@:' 45:& <&-"!' <"B' 4<B' 5L;95::5B' 4&:' :-99-6'7-9'&'R
<"B' ;' 4<C5' 46<9 5B' 45' J-=B59' Q 5' 45' :A<9' -7' 4<' 7<=:5' 95;-9'
;-=&A' -7' <=:&">4<?' <"B' 45' 9-S 95?<&"5B!' <"B' 45' &? 98 4' 7&9:'
5:<" :' 6<:' 985' 4<' 5AP' 6<:' 8 595B' A-" &"85B" 45' 98 4' -' ("
>9-6&">' -=B' 6<:' 985' 4<' <=S `>89' 95C5<=5B' 95?<&"&">' -"=' 6& 4'
:&">4<?' &"' :8AA55B&">' -' 5A&=@:' 4&?:5=7 7-9' 4&:' :<&:7<A &-"@ Q 45'
-77&A5' --D' 45' ;=<A5' 64&A4' 5A&=' 4<B' :<?5' 4&">' 4<B' J55"' 95;-9 5B' -' 45'
45=B' 5<9=&59'&"' 45' 95&>"!'<:' 45' <BC-S -==<"B59:' -7' 4&:' 4&"B9<"A5' -7' 45&9'
A< 5' -7' B5 59?&"5B' ?5<:895:' 4<' :8& !' <"B' :-' 6<:' 7<=:5=' A-"A5&C5B' J'
5A&=' 4<B' J55"' -' B5' %8<B9<!' <=S 45?@ 5'Q -B' D"56!@' 5A&=' :<&B"
:&">4<?' J<B' J5A-?5' -' (5"B-I<' Q 4<' 45' 6<:' 7<=:5=' :=<"B595B'@
5A&=' 6<:' A-":&B595B' A<8&-8:<"B' Q4&:' -6"' A-":A&5"A5' 6-8=B' -459S
&?&B!' <=:&">4<?' B<:4&">' <"B' 6&:5' J5' <' ;5&$;58<=:&">' -' 4&?"
-89<>5-8:' (' `>89' 4<B' :8;;-:5B <"B' 45' %855"' ?&>4' >95<=' A-"$

95A->"&:5B! <"B &" 595: =5" & :<&B -95=&>&-"&";9-S ? - &">< B5:&95 7-9&" 597595"A5 45 &?5 7-9 ;9<A &A5 <"B &" 9&>85 4<B >-"5 J

*M3M 8"5

B5?8 4&?&7 45 B&B "- A-;A89 <><&": 459 D"-6" 5"5?&5: -;&:4 <"B ;<"&:4 -9 45 ;<9 64&A4 45 4<B <D5" <J-8 45 < 5: 45 <;;5<=5B -<=:&">4<?<"B <C&S :-"! 64-A-8=B 5==&"64< :-9 45 4<B B5<= 6&4 459 (<R5: !-75"-45 -775"B&">459 6&4 4&:5<9"5: S "5::@_ + 7 8 2 $*8 8 8= &IS I<! *M3M = 44 5*. $!3

=< 595B J 89>4=5 @:A-"7&B5"A5 59=5?5" &-"5B - 459 &":-=5" =<"S >8<>5 64&A4 45 6-9=B 8:5B<J-8 5A&= 5 6<:A4<9>5B 6&4?-"-S ;-=&:&">45 %855"@: ;<9-"<>5! <JS :-9J&">45>-C59"?5" 6&4 4&:-6"4<"B! <?<::&">5"-9?-8: 65<=4 J 5"A9-<A4&">-"45 95<=?<"B 45 -???-":! A-?;5==&">< <==:8& -9: -<;;= -4&?7-9R8: &A5! <"B?<D&">"><=<"B &"7<A Q95>"8?5A&=&<$" "8?@_ 8 8 $* .D7 8 2 8> **$ I& =44 :!)

4&:=5 59! A8 89>4=5 -45 W8&AD! Q ?<:< 98= !K 45 <"S :6595B! G A8598" =&">8<: :8<: :&A8 :59;5" 5: C5"5"8?<:;&B8?: :8J =<J9&:5-98? 7 45 4&"D ?5 >8&= 45 "55B "-75<9 -<AA8:5 ?5! 7-9 <?<"-6-9 4 -A-" &"85 &"4&:;=<A5 J8 6&== &5=B ?:5=7 6-9 4 "-="-:J5 95?-C5B J8 -J5;8"&:45B <:<"5L<?;=5 -<== -459: 45 A<"-";9-C5 <== 45 =&5:45 8 59! =5 45?7<D5<" -"5 ;-&" 64595 6&4 -;9-C5 ?5>8&= 7 7<=:54--B! &"R8: &A5! J9&J59 !B&::&?8S =<&-"! B-8J=5 B5<=&">&"<BC&A5 &" -8"A&=5& 459 6&4 459 (<R5: -9 6&4459A-8"A&==-95 5 45?A4<9>5 ?5&"<" -"5;-&" 4<C5"-B5<= <:5<9"5: = 7-9 45 %855"@: (<R5: -<&B 45 <77=&A 5B! &" 45 -6 -8" 9&5: -6&4:<"B 45 ;-659 -7 45 &">-7 ;<&"! 45 <::8&$<"A5 -7 45 &">-7 A-: -J- &5B -459 (<R5: 6&4 956<9B! 5< 6&4 45 >95< 5: ;5":&-" 4< <" -459 4< 4 7 &"<" -7 45:5 J5;9-C5B -4<C5 J55" J54&"B -9 :=-659 4<" <" &"<B:A955 ?<""59 6&== 4-=B ?:5=7 6-9 4 -7;59S ;5 8<= 95;9-<A4 45 4< :<"&" <9<:4 <"B ?<=&A&-8: ?-AD59 4< ">=<"B &:5 J5A-?5 95>"8?5A&=&<$ "8?! ?< ;=5<:5 45&9 A<"D595B 48?-89: 6&4 :8A4 <B5C&A5! J8 &7 ? <A &-":J5 A-":&B595B! &7 4595 J5 <" A<8:5 >&C5" J ?5 -7 :8A4 <"&AD"<?5 4595?< J5 7-8"B -8 &" ?<" -459: R8: 59 W<8:5 -< 9&S J8 5 - 459 "<?5:5 4<" ?&"5@

5 65" -" -B5:A9&J5 4&: ;59:-"<= A&9A8?: <"A5:! <"B 4&: >5"59<= 95=<S &-": 6&4 45 45%855" 89>4=5 -8:5 J5=-">5B -4&: ?-459! 45 :<&B! <"B 6R 4 45 5LA5; &-" -7 <756 >9<" : 79-?B6<9B # <=?-: <== 45 95: -7 4&H ;9-;59= A<?5 -4&?79-?4&:7< 459 9-?45 %855"! 7-9 <== 4&: =-">:59C&A5:! 45 4<B 95A5&C5B "5L -" -4&">45 755 7-9 45 95<:8959:4&;6<: "- ?-95 4<" &4<B J55" 7-9 F++ 5<&$:! <"B 6-8=B "-<"659 45 A4<9>5: -7 4&: : <J=5 5 4<B J55" -J=&>5B -:5== =<"B -7 4&: -6" -;<4&: 5L;5":5: < -89 $ 45 4<9B5: ;<9 -7 45 ;8J=&A J8:&! "5: 6<: 49-6" 8;-" 4&?5 -45 >--B 4&">: 64&A4 45 %855B 4<B -J5: -6" -4&">4<B 7==5" -D&":?<"! :59C< ! -9 7-==-659 -7 45 4-8:5 -7 5A&= Q "C59 98 4! 45 :<&B! Q D"-6 ? A95B& &" :8A4

(59' (<R5: j' 69- 5' 59=5' <><&"!' (A<""-' ;9-C-D5'
(;<&"' ?-95' 4<"' :45' 4< 4' B-"5' 45' ;9-C-D5:' <=='
(9&"A5:' <:' 65==' 9- 5: <" :' <:' - 459:' <><&":' 459' & K
(45' ?<D5:' 459:5=7' "<D5B$-7' <==' <&B:!' <"B' A-"C59 :' 45'
(79&5"B:' "-6' ;95 5"B5B' -' 45' 89"5B' <><&":' 459:5=7'
(45' : <&":' 459' A95B&' 5C59=<: &">= '&"' 4<C&">' &?;-9$'
(8"5B' 45' ;--9' ;5-;=5' -C59' -' 459' <"B' 45"' -' :5"B'
(45?' 798& =5::' <6< ' 45' <J<"B-":' 45' 489A4' -7'
(-B' B&: 95::5B!' <"B' 459' J5:' J8=6<9D' 6& 4<=' 45'
(5LA=8B5:' 9<77&A' <' 4-?5' J ' B5:;&:&">' 79&5"B:' <J9-<B'
(45' B&::-=C5:' ?59A4<" :' 45' J95<D:' 45' B9<;59 '-7'
(">=<"B!' <"B' : <9C5:' 45' ;--9' ;5-;=5' =&C&">' -7' 45'
(:<?5' 9<B5!' -' <"5A5::& ' 4<' 6o=' :4<D5' 45' 79<?5'-'
() 45' 64-=5' : <5' 45' >5" =5?<&R' :4<==' "-' :5==' 4&:'
(6---!' 45' ;=-8>4?<"' 4&:'EA-9"!' "-9' 45' <9 &7&A59:' J5'
(5?;=- 5B' ==' 4&">:' 6&==E' J5' B&:-9B595B!' <"B' 65' J5'
(:877-A< 5B'&"' -89' -6"' 7< !' 4-8>4' 65' 755=' "-' 45' 7-9A5'
(-7'<" '7-95&>"'&"C<:&-"' 45' A8: -?:' 6&P' J5' "-4&">'
(59' (<R5: ' ?8:' =&C5' -7' 459' 95" !' <"B' 4-6'& '6&==' J5'
(<":6595B'&:' B-8J 78=!' <"B' 4<' 64&A4' :45' ?-:' 75<9:'
(6&P' 7-==-6' <' 45' 455=:!' 45' A-" 5?;' -7' 459' ;59:-"!'
(45' 95;8 <&-"' 64595-7' 4<:' J55"' D5;' &"' 8"5' 4&:'
(65" ' 5<9:' J ' -"5' ;--&A '' J8' 45' B< 5' &:' -8 !' <"B'
(45!' =<:' 5" 59 <&"?5"' 4<B' =&D5' -' 4<C5' 5"B5B' 9<$'
(>&A<== '@H

89>4=5 ' 4<"D5B' 4&:' A-995:;-"B5"' 7-9' 4&:' :5":&J=5

A<:5:'-' ?5<"!' <"B' - 459:' '7&"B' :-' -7(< (7 8 2'$*' 8 1' 8>' *1$.1'
5<9"5:' <"B'<J=5' -' -J <&"' <" 4&">!' =44'5*. $!3
4<' 'B-'8 59=' 7-9J5<9' -' ?-C5'7-9'
<" ' 45958;-"' ?<" !' ? ' >--B'
79&5"B:!' B-' R8: =' A4<==5">5' ?5' <:'
8"6&:5!' 4<' ' :55D' -' ;=<A5' "5& 459'
?<"' "-9' 6-?<"' &"' 45' A4<?J59' "-9'
6& 4-8' -' :59C5'459' (<R5: !' 64595S
J ' '?&>4'B-' ? '79&5"B:'>--B'<"B'
45957-95' &"B55B' '4<C5' 756' ;<9 &<'
79&5"B:!' <"B' :-' '7&"B' 45' 6<" ' 4595$

-9B &8$>4=5 4-:'J55"'95;9-<A45B'
-7=< 5' 5<9:'7-9' "5>=5A &">' -'<BC<"A5'
4&:' "5;456!' 9<"A&:' <A-"' (<" '
?-&C5:'4<C5' J55"' :8>>5: 5B!'&"B&7S
7595"A5!' J=&"B"5::!'5C5"'R5<=-8: ' -'
-"5' :55?:' -'4<C5' :8:;5A 5B' 4<'45'
6<:'5" &95=' ';-659=5::
' 59=5' -' 89>4=5 !' 8=' &,$K,$'
_ =44'5*. $!3

LLL ?

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=5 59 ' 5' 95 ; =&5B' 4< ' 45' 4<B' =<J - 895B' 4<9B' -' ? <D5' 459' (<R5: ' 8"B59: <"B' 4< ' :45' A - 8=B' "- ' :<75= ' :5 ; <9< 5' 459 : 5=7' 79 - ?' 45' A - ? ? - "' A<8 : 5!' <"B' 4< ' $645"' 459' "5&>4J - 89:' 6595' - C59A - ?5' 459' - 6"' 89"' 6 - 8=B' A - ?5' "5L ' Q 59' (<R5: ' :55:' 4&:' : - ?5 &?5 : !@ 45' :<&B"' @ :45' 6&==' &5=B' <:' - C59A - ?5' &"' <9>8?5" "' J8 ' @ 4< ' 64&A4' &:' "< 89<=' -' 459 : 5=7' 4&"B59:' 95 : - =8 &- " @H ' 4&:' &?5' 7 - 9?<=' B5 ; 8 &5:' 79 - ?' 45' < 5:' 4<B' <"&C5B' &"' - "B - "' 45' - 7759' - 7' : - C595&>" ' 6<:' 95S "565B' <"B' <><&"' B5A=&"5B!' J8 ' 45' %855"' A - " &"85B' -' 95 ; 5< ' 7 - 9' <' &?5' 4< ' :45' 6<:' 95<B ' -' <AA5 ; ' <' 9 - S 5A - 9< 5!' <"B' " - &A5' 6<:' >&C5"' 7 - 9' <' ?55 &">' - 7' <9=&<S ?5" ' -' B5A&B5' 645 459' 4595' :4 - 8=B' J5' ; 5<A5' - 9' 6<9 K@H "' B5 <&=!' 4 - 65C59!' 4595' 6595' &? ?5B&< 5' B&77&A8= &5: ' -' <::8?5' 45' 9 - 5A - 9< 5' 6 - 8=B' J5' -' <::8?5' 45' 5" &95' <B?&"&: 9< &- "E!' <"B' =&I<J5 4' 6&:45B' -' A - "7&"5' 459 : 5=7' -' :5"B&">' 9 - - ; :' 6& 4' <' &58 5"<" $ 5"59<=' 45' < 5:' B5:&95B' 459' -' <D5' 45' ; =<A5' 64&A4' 4<B' J55"' 45=B' J ' 45' 9&"A5' - 7' 9<">5 ' 45' ; =< 5B' 6& 4' 45' &B5<!' ><C5' C<>85' <":659:!' <"B' 9&5B' -' B - B>5' 45' 0 ; - :& &- " ' 45' 8"B59 - - D!' &"B55B!' <"B' 4&:' 6<:' ? - : ' &?S ; - 9 <" !' @ -' ? <D5' "-' 98A5' 6& 4' 45' 5"5? '$6& 4 - 8 ' 45' Q A - ":5 " ' - 7' 45' < 5:$ 5"59<=!@H J8 ' :45' 6<:' ? <D&">' 5C&B5" ' 577 - 9 :' -' <C - &B' 45' <; ; 5<9<"A5' - 7' B&95A ' <A &- "' <><&": ' ; <&" ' :' <9=&<?5" ' 6 - 8=B' !4<C5' <D5"' < A=5<959' ; - :& &- "!' :45' ; 95C5" 5B' 45' ?55 &">' ' 6<:' -' 4<C5' :< 5' 64&=5' 45' - ? ?&: :&- "59:' 6595' &"' ">=<"B$ P"D" - 6"' -' 89>4=5 !' <"B' B89&">' 4&:' <J:5"A5' 79 - ?' 45' - 89 !' & ' 6<:' :8BB5"= ' ; 9 - 9 - >85B H' 45' W8<9$

6 $ / ' &' $ ' ' *1 .1 ' R6 $ / '7. ' ! % 5'&4'/. *3<'
_ = 44 ' 5 * . $!3 # 3' / ' %. ' B=&$' / ' !$&$& *3 '
M=$&!& . ' &4' / ' . ' +&"; &4' =.$ *." 3 ? / ' 7$& ' &' $ +J'
"* *&3 $ '7* /' / 'P 3?'.3 7 $' @' /.5' 3&' "&$ ' &' 5&' 7* /'* ' /.S'
3 ' L1L - = 44 ' *#'()' & ' /.5' ' 7. ' . ' " ' /& '
' :!) / &#. 5? ' / ' 5. ' # 4&$ ' * ' 7SM

95=&5B' k :Q&4 5C59 ' B5?<"B' 4<' 6<:' ?<B5' 8;-"' 459' 45' ?<B5' " 659;' <' :5;<9< 5'W85: &-"' 79- ?' 45' >5"59<=' B575"A5' 45' B5A=<95B' 459:5=7' 6&==&">' -' :5"B' 7-89' 4-8:<"B' ?5"' -' <::&:' " 659;!' J8' :45' B5?<"B5B' :5"B$<"B' 45' =8 :' <:' <BB& &-"<=' >8<9<" 55:' 45' A4<">5B' 459' ?&"B' <J-8' 45' 9- 5A -9< 5' -7' 45' < 5:' 45' B5A&B5B' -'=&?&' 459:5=7' -' J5&"-' <"' Q<&B&":9' 79&5"B @H 5' :45' :&==' ?<B5' <' A-"B&&-"' -7' 45' 9<":759' -7' =8:4$' &">!' 9&==!' <"B' "A48:5"' 0<"B' 7&"<== '7<==&">' J<AD' -"' 459' -=B' ?5 4-B:' Q:45' 9578:5B' -' 5" 59' &" -' 45' <A &-"' < '<==' Q- 4596&:5' 4<"' 8"B594<"B'@ 64&=5' 459' 64-=5' -8"A&=' -7' <==':4<B5:' <"B' ;<9 &5:' <>955B'7-9' -"A5' 4<' &' 6-8=B' J5' QB&:4-"-89<J=5@ <:' 65==' <:' QB<">59-8:!@ <"B' 4<' Q&' 6<:' &?;-::&J=5' :45' :4-8=B' =-&s>' : <"B' 8"=5::' :45' Q5" 595B' -;5"=' &" -' 45' <A &-" @H

-' 5?;' 459' A8;&B& !' <' QB5C&A5@ 6<:' ;9-;-:5B' J' 64&A4' &7' :45' J5A<?5' -C595&>"' -7' 45' < 5:!' :45' ?&>4' ?<D5' 5"' 4-8:<"B' ;-8"B:' <' ?-" 4' -8' -7' 45' A89S 95"A '' <"B' -' 95?-C5' 89>4=5 @:' :8;;-:5B' -;;-:& &-"' < 4-8:<"B' ;-8"B:' <' ?-" 4' &"' <BB& &-"' 6<:' -77595B' -' 4&?:5=7' 7' &' A-8=B' J5' B-"5!' 89>4=5' :<&B!' 45' 6-8=B' J5' -' J=<?5' &7' 45' 9578:5B' 4&:' <::5" ' -E <" 4&">' 64&A4' 6-8=B' J9&">' 45' %855"' -' <EB5A&:&-"!' Q:55&">' 459' & (<R5: !' 7-9' 459' -6"' :895 !' 6<:' J-8"B' -' A4<9>5' 459$' Q:5=7' 6& 4' 45' B575"A5' -7' 45' < 5:' <><&":' 45&9' 5"5? ' Q<"B' 459:' J8' 7-9' 45' -7759' -' 4&?:5=7' 45' B&B' 8 59=' Q9578:5' 5& 459' :8A4' -9' <' =5::' :8?!' 4&"D&">' &' ?-95

5&3' .35' 7/ 3' *' 7.' 5&3' /' 4*$' '/.$5' &4' *' 7.' #' " ' &$5' &4' *% $?' $!&$' ' 7.' ($' &$$' .35' &' 7.' /*' &$5 /*! ?-' !.& 8 2' $*' = 8' ' *1 .1' =44' 5*. $!3

6 /' ! $!& ' &4' /' 5* *3% *&3' .!! .$ 5'.4 $7.$5 ' B" .3*3' ! $; /.!' &' .#.35&3' /' .% *&3 ? 7$&

. *3 /." ' G' /' %&3% *(' * " . ' # ' 5&3' 7* /' /' ' 5* /&3& $' # *3' .3' . * $' /.3' 7/ 3' / $' "*3* $' /. '%.$$' / ' * '&4'.# &; ' &($3&$?-' '8!(7 ' .' $*' !I 3 $' !$*' 9' *% $' %&$; $!&35 3% ' 5* 5'# ' &/3' $ % 6 . *3 /."' &' .4*#$5' ' .' - =44' '(3

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J5 8"<J=5 -95:&: ! =B5>-"B5! 64-A-??<"B5B 45?!
:8995"B595B 6-B< :<7 59 45 :&>"< 895 -7 45 95<
5 4-8>4 & (7--=&:4"5::-5L;5A 45=;79-?<6-?<"!
(<"B 4< 6-?<"" 45 ?-: C<9&<J=5 <"B &"A-": <" &"
Q 45 6-9=B @!H 5 -=B <=:&">4<?: 4< 45 4<B B-"5
4&:J5: 5 4<B &5=B5B -"= 645"" -;5&E:&: 6-8=B
4<C5 5L;-:5B 45 8"7-9 8"< 5 A& -"A5 ?-95 -:<AD
<"B J8 A459 H& 98: <"B B5:;-"B5"A 4<B <=?-:
A<99&5B -==<"B<"B T5<=<"B -:&?8= <"5-8::8J?&::&-"
<9?<-7= 595B 45?5C59 4&">4< 45 A-8=B 6&:4!&7
45 6-8=B <==-6 45&9A4<;5=: -J5 :8;;95::5B<"B 45
?<::-J5 95$5: <J4:45B&"" 45 A489A45:"<"B 45 B95<B
-7 :-?5 9&AD -"" 45 ;<9 -7 =&I<J5 4! 45 B&:=&D5 -7
;<9 &">6& 4 45 :5< -6":!<"B (45!=<9>5 -7759:-7 45
(5"5? !@ 6595 7<:&"A=&"&">45 ;5-;=5 -;5<A5O 7
:45&" 5"B5B -4<C5 45 -6":! :45 6<:95A-??5"B5B
-<D5 ;-::5::&-"" -7 45?<-"A5!<"B -:5"B -C59
:-?5 -"5 -A-??<"B 45 <9? 45 9--;:4<B
A9-::5B!<"B :45 4<B :&>"5B 45 95< "J8 75<9:6595
5" 59 <&"5B 4<:45 6<:: &== 4&"D?>-7B9< C&":7 J<AD
<C&:-"" 6<: <><&"&"" -==<"B! 4<C&">>-"5 -C59 -"" 45
"56:-7 45 7<==! -7 " 659;(=5 759:79-?<=<&:!@
69-5 <=:&">4<?!-"" 45 .,4 -7 8>8:!(:4-8=B 4<: 5"" 459 95$
(:-=8&-"!64&A4 -8:4<==B-65== -789 459 J 69& &">
(4& 459 <: :--"" <: -8 <95 -C59! 7-9 4< 459 (<R5:
Q ?8: "55B: :5"B 4& 459 6& 4 :;55B =5: -4596&:5
(4595 J5 <"" <AA-9B ?<B5 J57-95 :45 J5 <6<95 @H

K Q (=B5>-"B5 <A<=-?"&`
=< 5 "5 B@ ">=5 5995! B&:<" 5" 95
<8 95:;9-;-:W85 A@5: -& 8"5 >9<"B5
7-=&5 B@< 5"B95 :5A-89: B@8"5 <?5!
:&">8=&a95?5"B5 8"5 W8&5: =<;=8:
&"A-": <" 5 <?5 W8@-"" ;-899-&
9-8C59 <8 ?-"B5 @_ 4 3 $D)L I
$! . ($6 *. ($- B 8> *M3M

= 44 *#'()
=B5>-"B5 - <=:&">=&<?!
8> *,$< _ = 44 :!)
K ->59 &==&<?:- <=:&">4<?!
8> *M$.MK_ = 44 :!)
<=:&">4<?: - <C&:-"! 8>
V,$ 5; 2 _ = 44 :!)

*M3M
8>8:

45 %855"@: A-"B8A &"B55B! 4-65C59 &" 5==&>&J=5 & J5A<?5 <7 596<9B:! 645" 45 &""59 ?-C5?5" : -7 & 6595 95C5<=5B! 6<: -" 45 :897<A5 &"5L;=&A<J=5 45 &" 5"B5B 5C&B5" = -:55?<:&7:45 ?5<" -B-:-?5S 4&">95<=" <"B <: J57-95! 645" :45 495< 5"5B &" 59S 7595"A5! :45 4<B :5" -" -4"! :-"-6:45 :5" -" <9?< -95?&"B 4&?4<:45 4<B =-">5" 95< 5B 4&=&;" -">&C5 ;5<A5 -45 9-C&"A5: J >9<" &"> 45?: =&J59 -7 A-":A&5"A5! <"B :-?5 -=59< &-" 7-9 45 5L59A&:5 -7 45&9 95=&>&-" 45 6<: A-""5A 5B 6& 4 45 -6 -L? 9&5:! :45 :<&B! J ?<" &5:! <"B 6<: B55;= &" 595: 5B &" 45&9 65=7<95 45 4<B -7 5" -=B 45 &">4<8"=5::45 6-8=B <D5 < 95<:-"<J=5 A-89:5 6& 4 45?: 45 6-8=B J5 7-9A5B -" &" 597595 45 4<B "-<?J& &-" -<""5L 45 9-C&"A5: -" ">=<"B 45 B5:&95B "-4&"> J8 -:55 45?: 4<;;&= :5 =5B 8"B59 45 ;<"&:4 A9- C" 8 8"=5::45 &"> 6-8=B A-"7&9?: 45 ;<A&7&A< &-" -7 45" -9 A-"A5B5:-?5 B5>955 -7 -=59< &-"! -9 8"=5::45 9&"A5! &7 45 4<B "-A-??&::&-" -5" 59 <&" :8A4<W85: &-"! 6-8=B >9<" <:8:;5":&-" -7 <9?: &==45 A-8=B :5"B -;<&" 7-9 &": 98A &-":! :45 :<&B (:45 4<B B5 59?&"5B! (<"B 6<: 78== ?&"B5B! -5?;=- :8A4 ?5<":<: -B H4<B >&C5" 459 &" 45 <::&: <"A5 -7 45 :<&B A-8" 9&5: (H -7<9 <== 6<: 4-"-89<J=5 <"B : 9<&>4 7-96<9B

45 "5L : 5; 6<: -A4--:5 :-?5 -"5 -A-??<"B 45 ">=&:4 A-" &">5" P"&C59:<=A-":5" :5 =5B< -"A5 8;-" 45 <9= -7 5&A5: 59 ==<=-">! 645" &" 59759S 5"A5 4<B J55" <=D5B -7! 5&A5: 59 6<: 45 ;59:-" 4-8>4 -7 <: 45 ?-: :8& <J=5 =5<B59 6<: 985 4< 45 4<B "5& 459 <J&=& "-9A4<9<A 59 J8 45 6<: 45 %855"@: :8;95?5 7<C-89& 5! 45 ?-: A-":;&A8-8:" -J=5?<" <

K ": 98A &-":" -9 -4" ?& 4! 8'() 8>' &'.$ 5; ' & _ =44(
>5" -45 9&"A5 -7 <9?< _ =44 8'()

45' -89 '' 45' -"5' -7'<=='- 459:'64-'6<:':8;;-:5B' J ' 45' 6-9=B' -' 95;95:5"' 9--:' "5<9=' 45' %855"@:' ;59:-"' 64&=5' :45' 459:5=7' 95><9B5B' 4&?' <:' @<' A95< ?$5'-7' 459' @-6"!@ <"B' 45957-95' ?-:' -' J5' B5;5"B5B' -"' -' J5' ;=&<"' -' 459' 6&:45:' "' 5&A5: 59!' 45957-95!' 45' A4-&A5' B5 59?&"5B!'<"B'-"' 45' .3' 4'-7' 8>8:'x 5;', '459' ;=5<S :895' 6<:'A-??8"&A< 5B' -'4&?'J ' <=:&">4<9<' 45'&" &S ?< &-"' B&B' "-' <D5'4&?'J ':89;9&:5' @ 5'4<B'J55"' ?-:' @ 6&==&">!@ 45' :<&B'' Q&' :55?5B' -' J5' -B@:' A<8:5' <"B' 459' @ (<R5: @:'*@ "-9' 4<B' 45' <"' 95<:-"' -' -7759' 7-9' 95=8AS <"A5!' J5 -"B' 5L;59&5"A5'-7'4&:' ?&: 95::@:' 5?;59<?5" ' 8'<';95:5"&?5"'-7' 5C&=' 4<8" 5B' 4&?' 45' -8"A&=' 4<B' C-5B' 8"<"&?-8:=' 7-9' 45' 95< !' <"B' 45' =-::'-7' " 659;!'&7' 45' %855"' 6<:'95<==' 95:--=8 5!' 6<:'-7'?&"-9' A-":5W85"A5' -":A&5"A5!' 4-"-89!' &" 595: !' ;-&" 5B'&"' 45' :<?5' B&95A &-"'*' -' B5:59' 45' <5:'?&>4' :--"' A-:' 459' "-' -"=' 459' D&">B-?' J8' 459' =&75'' J8' :&=' 5&S A5: 59' B-8J 5B' Q 7' 459' (<R5: !@ 45' :<&B!' Q 6<:' =5B' -9' @ B9<6"' -"' J' 4&:'<BC59 &:5?5"' -9' 4<' ;59:8<:&-"!' <:' @ &?5:' <"B' A4<">5:' 75==' -8 !' 6& 4-8'<'78==' ;59:8<:&-"' @&"B55B' 4<' 45' A<8:5' 6<:' <:' &' 6<:!' <"B' 4<'&'B&B' @A-"A59"' 459:5=7' <"B' 45' 64-=5' 95<=?'&"' 45' 4&>45:' @B5>955!'&' 6595' J5 59' 7-9' 459' (<R5: '"-' -' 5" 59'&" -' @&!' <"B' 459' ?-"5' ?&>4' J5' 7-9' 45' &?5' :<C5B!' <"B' Q459' ;5-;=5' J5' ;95:59C5B' 79-?' :=<8>4 59@H

45' %855"' 4<C&">' :&>"&7&5B' 459' ;=5<:895!' 4-65C59!' 45' ;95;<95B' -'>-!' <"B' -'>-'<' -"A5!' :&"A5' 45' < 5:' 45:& < 5B' -' ?<D5'-C59' 45' -6":!'<' =5<:' &==' 4&:' <;S ;-&" ?5"' 6<:' A-"7&9?5B' <B' 5&A5: 59' A<?5' 79-?' 5"&=6-9 4' -' -"B-"!' ?5<"&">' -' <AA-?;<"' 4&?!' 64&=5' 45' 4&?:5=7' 6<:' J-99-6&">' ?-"5' 8;-"' 4&:' =<"B:' -' ?55' 45' A-:' 64&A4' 45' D"56' 6-8=B' J5' 49-6"' 8;-"' 4&?' ' -"A5!' 7-9' "-' <::&>"<J=5' A<8:5!' 45' %855"@:

LLL"&

*M3M
&4! 4; 4"

48?-89 A4<">5B 45 <;;5<9<"A5 -7 45 -8" 5::
5 &A5!64-?:45 B5 5: 5B!:55?5B -&99& < 5 459 45
:<&B:45 6-8=B:5"B:-?5 -"5 5=:5! -9:5"B"-"-"5H
45 :-9?J=56-C59!<"B 45 <9=6<:<><&"-">-
645"":45 ?<B5<"-459 B&77&A8= 45 7<"A&5B-9;95S
5"B5B-7<"A 4<:45 6<: B &">!<"B 4<:45 A-8=B
(*$:;<95 4&?79-?459:&B5H
45 95A-C595B 459:;&9&:! J8 45 &?;9-C5?5" =<: 5B
-"= 7-89 B<: " 45 .2 4 -7 5; 5?J59:45 4<B
-"A5 ?-95 B5A&B5B -B- "-4&">
P"=5::-B >&C5
459 (<R5: <"-459 ?&"B!:<&B <=:&">4<?! &
6&==
6-9D 459 <"B 459 :8JR5A :98&" H 5&A5: 59 A-8=B
J8 <":659 & 6<:-"5 -7 45 :9<">5: B5<=&">:&"
45
6-9=B 45 6<:65H<9 -7 =&75 <"B <== H
55D: 48: 65" J &" <=59"<5 :4&7 : -7 ?--B
<C&:-" <"B &9 -4" -99&: --D A4<9>5 -7 45 9--;:
4< 4<B >-"5 -C59! J8 "5& 459:8;;=&5:"-9?-"5 6595
7-9 4A-?&">-:8;;-9 45? =&I<J5 4 -9B595B 4<

K 595 - 'V =8D56<9?! <"B
5 79-?:8"B9 W8<9 59:/65 45<9 -7
>95< ;9<A &A5:<><&":4&: ;--9
A9-6" :55 "-459 (<R5: B&:S
;-:5B -8:5 45 :59C&A5 -7 ? -9B
-7 5&A5: 59 4595&:>95< -775"A5
<D5"&"45 A-"C5 &">B-6" -7 4&:
=<B @_ '8!(7 .'$*5'L! *(5;
M$*M = 44 4*#'()

K (9 5A95 <9 ! 7&"B 459
(<R5: C59 B5:&9-8: -: <? 5
45 ?<D5: 45 A<8:5 -"= 45 B-8J S
78="5::-7 459-6" :5=7! J 95<:-" -7
459 -7 5" B&:5<:5 <D&">459 -7 =< 5!
<"B 4&:=<:"&>4 6-9: -7 <P 45
8:5B C59 ;& &78= 6-9B: -? 5 -7 459
75<9 :45 :4<= "-=&C5! <"B 6-8=B
"-4<C5 ?5 79-?459 -8 A<"
A-":&B59 64< ?<""59 -7 ;59:8<:&-"
4&: ?8: J5 -?5 79-?459" <"B
45957-95 6-8=B "-:<?8A4 7-9
<" ?< 59! J8 B&B A-?7-9 459 <:
?8A4 <: A-8=B! -"= B&B =5 459
D"-64-67<9 4<B >-"5&"; 95;<9<S
&-" B- 4&"D 7-9 <= 4&:! 4< &7
:45 J5 65= -$"&>4 !:45 6&= =5 ?5
>-!7-9:45 6-8=B "-4<C5 ?5 :;5<D
-7 & - 45 A-"9<9 - <" J-B
48:?8A4 4-8>4 >--B -=5 -8
D"-6! <"B ;9< -8 :5"B ? 6&75
6-9B &"45 ?-9"&">4< A<""-
A-?5J57-95 489:B< - -"B-"
-89<::895B!

)* # '+
4&: =5 59 &: B< 5B A4<9<A 59&:S
&A<== J 5&A5: 59! 4&:5C5"&"> 6
6<:4&:4<J& 645"" 45 6&:45B -
J5 ;95A&:5 "5"B-9:5?5" <:&>":
& - 45 =&: -7 5; < !3 $ $*
'8!(7 '. = 44 5*. $!3
K <=:&">4<?- 5&A5: 59! 5; <2 < !3 $ * B*() (3
/ 5&A5: 59 - <=:&">4<?! 5;
&' &

45' 6<9' :4-8=B' J5' : 9&A = ' B575":&C5!' <"B' 4<' -"' "-' ;&@5 5"A5' :4-8=B' 459' :-=B&59:' J5' :55"' &"' 45' 7&5=B' -99&:' A-8=B' "-' J5=&5C5' 459' -' J5' :59&-8:!' <"B' &"' 45' ?&BB=5' -7' A-J5& 45' : -9?5B' <' ;<"&:4' 7-9' 6& 4' A-":;&A8-8:' ><==<" 9 ' 45' 95J8D5B' 4&?' &": <" = ' <"B' :5C595= ' 7-9' 4<C&">' "5>=5A 5B' 459' &": 98A &-":! @459' ?5<"&">' &"' 45' @<A &-"' 6E4&A4' :45' 4<B' 8"B59 <D5"' J5&">' -' B575"B' <"B' @"-' -' -775"B @*

45' < 5:!' ;59;=5L5B' <"B' 8"5<: !' ?-95' 4<"' 5C59' 45:& < 5B' -' 95=&"W8&:4' 45&9' -6":' J8 !' 8"6&==&">' -' J95<D' 45&9' ;<9' -7' 45' J<9><&"!' 45 ' &" &?< 5B' -' <C&S :-"' 4<' 45 ' 6595' 95<B ' -' ;=<A5' 45?' &"' 4&:' 4<"B:!' &7' 45' 6<:' ;95;<95B' -' 95A5&C5' 45?' 5' 6<:' :A<9A5= ' <J=5' -' B-' & ' 45' <9? ' 4<B' J55"' B&:;< A45B' &"' 4<: 5' 6& 4-8' <' 95:;-":&J=5' -77&A59!' 6& 4-8' A4<">5' -7' A=- 45:' -9' : -95:' -7' <" ' D&"B' - ' <"' <9 &A=5' -7' <" ' D&"B' -9' <' : &C59' &"' ?-"5' 4<B' 7-==-65B' 45?' <"B' :&L' 655D:@ :59S C&A5!' 8"B59' :8A4' A-"B& &-":!' 4<B' <=95<B ' 9<":7-9?5B' 45?' &" -' <' 9<>>5B' ?-J' 45' A-?;<"&5:' &" 5"B5B' -' ><99&:-"' =8:4&">' 4<B' J55"' 5L;-:5B' 5"' B< :!' &"' -;5"' J-< :!' -' 45' A-J59' 9<&"' <"B' 5?;5: !' <"B' <' &?5:' 4<B' -' 5C5"' 7--B' -9' <' 655D' <7 59' 45' ' 6595' 48BB=5B' ->5 459' &"' <' A489A4' < ' (&BB=5J89>4!' 45&9' :-<D5B' A-< :' <"B' :4&9 :' B9-;;&">' &"' ;&5A5:' 79-?' 45&9' J<AD:' -' &<" ' B&5B!' 4<' B6<9B' -99&:!' &9' -4"@:' J9- 459!' <:' -J=&>5B' -' 69& 5' ;95::&">= ' 7-9' 95&"7-9A5?5" :' &L' 48"B95B' B9<>>=5B!' 4<=7$<9?5B!' <"B' : <9C&">' 95 A45:' 6595' ?<9A45B' < ' =<:' &" -' =8:4&">!' <"B' 95S =8A <" = ' ;8' &"' ;-::5::&-"' -7' 45' 6-9D:' &"' 64&A4' 45' < 5:' 4<B' ?<&" <&"5B' :5C5"' 48"B95B' <"B' 7&7 ' @5L$ @A5==5" = ' <;;-&" 5B' :-=B&5&@:@ 45' : -8' &"4<J& <" :' -7' 45' -6"' 95A5&C5B' 45&9' "56' ?<: 59:' 4<=7' &"' :8:;&A&-"

LLL"&
*M3M
0 + 4"

LLL&"

*M3M
0 + 4"

<"B 4<=7 &" :A-9"! <"B 9578:5B - 789"&:4 45? 6& 4 5& 459 J95<B -9 A=- 45: 5LA5; 7-9 ? -"5 ! -7 64&A4! 45 4<B "-"5 - >&C5 H

-?5 4&"> 6<: < 6-9D &" 45 %855"@: ?&"B J5 -"B ?595 &995: -=8 &-"! - ?<D5 459 :4&7 <"B ;<8:5 <"B =5<C5 459 9--;: - 7<?&:4! <"B 45 < 5: - 98" B&: 9<A 5B 6 - -&"&"-8: =5 59: 79-? <=:&">4<?! -"5 - 89>4=5 ! <"- 459 - 45 J56&=B595B <C&:-"! &L;=<&9& &" ;<9 64< & 6<:

@ 4&"D& 9&>4 - =5 -8 D"-6!@45 69- 5 - 89>4=5 -" 45 .2 4 -7 A -J59 x -C M ! 4< 459 (<R5: @B- 4 B5=&C59 8" - B&C59: ;59:-": 45 >95< ?&:=&D5 :45 @4< 4 -7 459 -6" 9`:-=8 &-"  <D5"  &"  45 A<8:5 -7 45 @ -6 -8" 9&5:! < ?< 59 64&A4! J5&"> -"A5 D"-6" @5& 459 J  45 5"`? -9 4-:5 -7 45 -6 -8" 9&5:! A<""- J8 6-9D :-?5 B<">59-8: A4<">5 7 459 @ (<R5: J5 B&:;-:5B - ?<D5 ;5<A5 <"B A-?;-8"B 45 @B&77595"A5: J5 655" 459 <"B ;<&"! :45 A<""- J8 @?<D5 & 6& 4 7<9 >95< 59 <BC<" <>5 "-6 4<" J57-95! @645" :45 4<B "- =8:4&"> <"B 9&= &" 459 4<"B: @ 8 45 6< - ?<D5 & >--B &: "- &" -8 6<9B :456 @ - :55? - ?&:=&D5 459 J<9><&"! J8 - ;8 < >--B @A-8" 5"<"A5 -" 45 ?< 59 7-9 < 64&=5! 8" &= 4595 @:4<= J5 :-?5 6< B5C&:5B - A-?;-8"B 4&">: 6& 4 @4-"-89 <"B :<75 @H

@ 89 : < &" :5"B&"> -" >-C59"-89: - 45 -6"!@45 69- 5 < 7-9 "&>4 =< 59 - <C&:-"! @A<""- J8 J955B @:-?5 B-8J -7 -89 B&:;-:& &-" - 45 A<8:5 -9 9< 459 @ 4< J5&"> "-6 ;-::5::5B -7 =8:4&"> <"B 9&= 65 @:4<= :55D - :59C5 -89 89" < 45&9 A-: <"B ;59&= @ A<""- B5" J8 :-?5 ;9<A &A5: 4<C5 J55" 8:5B -

* &9 -4" -99&: - <C&:-"! A < = 44 *88'( )
$ <C&:-" - 89>4=5 ! A K <=:&">4<? - 89>4=5 ! A
F$1F! <"B A 1+$F+ B6<9B 12$ -C M _ = 44 5. $!3
-99&: - <=:&">4<?! A 1*$F*

LLL&"
*MBM

@ B9<6' 459' (<R5: ' -' ?&:=&D5' -7' 45' ;95:5" '<A &-"!' <"B'
@ -7' :8A4' <:' <BC&:5B' 459' -' 5" 59' &" -' 45' :<?5 @!H
=&I<J5 4' 6<:' :4-6&">' 459' 4<"B' ;95?< 895= ' 45'
7-89' 4-8:<"B' :5<?5"' <"B' 7&:459?5"' &"' =8:4&">' 6595'
=&D5= ' -' ?<D5' :4-9 ' 6-9D' -7' 45' ;59&:4&">' 695 A45:'
k 64-! 6& 4-8 ' <' >-C59"-9' -9' A-??<"B&">' -77&A59!' 6595'
;8 ' &"' A4<9>5' -7' 45' ?-:' &?;-9 <" ' ;-:& &-":' &"' 45'
k 64-=5 9-C&"A5:!' 7' 95<A459 ' 6<:' B&: &"A = ' :8:;5A 5B '
4-8>4' 45' >5"59<= 8"A59 <&" ' A-" &"85B!' 45957-95!'
<;;5<9<"A5:' 6595' ?-95' A<9578== ' : 8B&5B" &9' 4&=&;'
&B"5 ' 6<:' :5" ' <:' >-C59"-9' -' =8:4&">' <"B' &9'
4-?<:' 5A&=!' 89>4=5 @:' 5=B5: ' :-"!' -' 9&== ' 45'
A4-&A5' -7' ;59:-":' :-' "5<9= ' A-""5A 5B' 6& 4' 45' -C59"S
?5" ' :55?5B' -' &?;= '<' ?-95' B57&"5B' ;89;-:5 ' '=& =5'
?-"5 ' 6<:' <=:-' :5" !' <"B' :-?5' 8;;=&5: ' &"<== !'
5&A5: 59@:' <;;-&" ?5" !' <7 59' 6-' ?-" 4:@ 6<C59&">!'
<:' 95A-"7&9?5B"' <"B' <=:&">4<?!' <' 45' J5>&""&">'
-7' -C5?J59!' 4-;5B' 4<' @ 45' ?< 59' 6<:' "-6' :-=C5B'
@ <"B' 7955' 79-?' ;9<A &A5: @ ' 45' ?&BB=5' -7' 45' ?-" 4'
&B"5 ' 4<B' >-"5' -' 4&:' A4<9>5' ' J8 ' 45' -9B59:' 6595'
: 9&A 59' 4<"' 5C59' 4<' ' 45' ">=&:4' 9--;-:' :4-8=B' J5'
-"7&"5B' -' ><99&:-"' 6-&@D!' <"B' <=:&">4<?' 9575995B'
<C&:-"' -' &B"5 !' -' =5<9"' 79-?' 4&?' Q 45' :9<">5'
K48?-89:' 4<' 95&>"5B' <' 45' -89 @ @ 4595' 6595'
H C59 46<9 ' ;9-A55B&">:!@ 45' :<&B!' @ 64&A4' 6-8=B' 5<:&= '
45' 95B95::5B' &7' 45' %855"' 6-8=B' <D5'<' 95:--=8 5'A-89:5!'
48 ' 4<' 6<:'<' ?< 59' 9< 459' -' J5' ;9< 5B' 4<"' 4-;5B
@ 7-9 @ .

45' ;9-C&"A5:' 6595' =57 ' &"' <"<9A4 ' C59 '<99<">5S
?5" ' 6<:' 45=B' &"' :8:;5":5' &==' 45' %855"' 6-8=B' ?<D5'
48-6"' 459' ;=5<:895!' <"B' :45' 6-8=B' "5& 459' B5A&B5' 64< K'
<8 4-9& ' :4-8=B' J5' 45=B' J ' 5&A5: 59!' "-9' <D5' 45' >-$'
k C59"?5" '459:5=7!' "-9' <==-6' 45' <5:' -' A4--5'<' <B $

' k <:&">4<?' -' <C&:-"!' -C' K <:&">4<?' -' <C&:-"!' -C'
_ =44 ' *#*$!) *N$.N _ =44 ' :!)

LLL"&
[44

4-=B59 5&A5: 59 6<: -A-??<"B 45 ">=&:4A-" &"S
>5" ' J8 '645 459 45 6<: -A-??<"B 45 < 5:@ 9--;:
<=:-_ 645 459 45 6<: -=5C <L5:<"B <B?&"&: 59 45?
_ 645 459! &"7<A ! 45 6<: -J5>-C59"-9 4595 -9 8"B59
45 98=5 -7 - 459:_ <== 4&: 6<: =57 <: &7 4R ;89;-:5B
A-"78:&-" 45 =5 4&?>-<=<: ! J8 :45 =<&B <A-"S
A=8B&">; 9-4&J& &-" 8;-" 4&? -<D5 <" -<4-7<"
D&"B -45 < 5:! -9 -AA8; <" ;-:&&-" 64&A4 6-8=B
&?;= 4< 45 6<: &" <" 6< A-""5A 5B 6& 4 45?
65" 4-8:<"B ;-8"B: 6595 A-?&">79-?459! 64&A4
:877&A5B -;< 45 6<>5: <=95<B B85 -45 :-=B&59:'
J8 :45 45=B -8 "-4-;5: 64< 5C59 7-9 45 78 895
:5A95 ;89;-:5 6<: &" 4<"B 64&A4 5&A5: 59 :8:;5A 5B!
4-8>4 45 6<: "-<B?& 5B -& @ ;59A5&C5!@ 45
69- 5 J57-95 45 : <9 5B! Q -89 ;5<A5 6& 4 ;<&" 6&==
@>-7<: -" J8 4&: &: "- 45 6< @H 45 =57 4&?
-5"A-8" 59 <== A-=< 59<= 5L;5":5: -8 -7 4&: -6" 95S
:-89A5:! -:5== =<"B:! -?-9 ><>5! -J-99-6! -A-==5A
:8J:A9&; &-": 49-8>4 45 A=59> !<"B 45 :;-D5 4&: ?&"B
7955= -" 459 95< ?5" -7 4&? @ 7!@ 45 69- 5! @& J5
Q 45 6&== -7 -B -;=<>85 8: 4< >-!<"B -8 4<
@ <99 ! 7-9 -89 :&":! 5 =5 8: "- J5 "5>=&>5" <?
@:-99 459 (<H5: B- 4 B5<= &" 4&: :-9 ! A-" 5" -
Q -C59 49-6 :- 6&==&">= 459 -6" A<8:5 --D -& !
@7-9 J 4a -9B 6&== J5<9 "-?-95 :- ?&:59<J=5
@J89B5":' 7-9&7 4<C5 "-?-"5 -;< 45 :-=B&59:!
@=5 45?A-?5 <6< ! -9 64< 5=:5 6&== "- : <9C5
Q 45?! "-9 : < 45? 4595 6<: "5C59 >5" =5?<"
@-9 >5"59<= :- :5" -8 <:0 <?(A<8:5 &: 45
@ -&@B@:<"B 45 %855"@: 7 45 %855" 7<&= 98: &"
@ 45 -9B! <"B -"4&?: 55 <?64-== -B5;5"B@O

H 5&A5: 59 - <=:&">4<?! 5A &":9! =5 59 <: 8:8<= 8"B< 5B!
F $ * F !' M$*M _ = 44 *88'( ) <=:&">=&<? _ = 44 !)
: 5&A5: 59! Q -" 45 5 5 -7 :<&=$

"4&:A-"B& &-" 45 "-J=5?<" 64-6<: -:"<A4 45 - - -(((
5 459=<"B:79-?' 45 9&"A5-7 <9?<:<&=5B79-?' <9S *M3M
6&A47-9 45 <>85&" 45 ?&BB=5-7 5A5?J59
"B "-67-9 45 5L;=<"<&-" -7 45&9 ;597-9?<"A5:!
64&A4 6595 5L 9<-9B&"<9 5C5" 7-9 =&I<J5 4
8 J57-95 5" 59&">8;-" & ! 65?8: =--D <:-?5S
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7<&959 =&>4 8;-" ">=<"B@:;9-:;5A : 4595C59&" 45
4&: -9 -7 45:5 &?5: 45 %855"@:4<"B&:C&:&J=5! 4595
&: <=6< :C<A&=< &-"!&"7&9?& -7;89;-:5!<"B>5"59<==
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45?:5=C5:! 645 459 <: :5<?5"! :-=B&59:! ?59A4<" :!
;&9< 5:_&" <" <"B <==A<;<A&&5:_ 4595 <: 8"&7-9?=
&: B5A&:&-"! 7&59A5"5::! -7 5" A985= ! J8 &"C<9&<J=
5"59> <"B C&>-89
4<: J55"K :<&B 4< -" 45 <995: -7 45 ">=&:4
:4&;:&" ;<&"! =5 59: -7 95;9&:<= 6595 >&C5" - 45&9
-6"59: -5"<J=5 45?' -'&"B5?"&7 45?:5=C5: 6<&@?:
-7 ;9&C< 559: 4<B &" A-":5W85"A5 J55" J8: 49-8>4
45 :8??59 4-C59&">-" 45 ;<"&:4A-<: 79-?' &J9<=S
<9 - 5J<: &<" 45 4<B ?<B5 :8A4 4<C-A! <"B
:-'>95< 6<: 45 <=<9?'< (<B9&B! 4< 6&A5 45 8:8<=
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7=55 79-?' <"<?<H &9 9<"A&: 9<D5 4<B =-">J55"
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45><==5-":A<99 &">4-?5<64-=5 5<9@:;9-B8A5 -7
45 ?&"5:! 6-8=B J5 <;9&I5! J5:&B5 64&A4 45 <A<785>-
459:5=7 6-8=B J5 &":&>"&7&A<" 4&=5 45 5L<:;59< &-"
!-7 45 ?59A4<" :A-" &"85B! 45 -J <&"5B =5<C5 79-?' 45

K ◊ <J&5"B-' C&: -' ' A-":&B59<B-' C&"&595"" B5 =<:' "B&<:! A-"C5"&<' W85
W85 5"" B-:' ?5:5:' 4<"" 45A4-' <" -:' ==5C<:5"" - 9<:' B-:'"<-:';-9'=-' ?5"-:'
H<[-:'=-:' ">=5:5:' A-"" =-:'"<C&-:' B5 5"" A<B< 7=- <◊< ' 3 ') ' 8*(9*'
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=-' ?&:?-'5"" =<:' 7=- <:' W85 78595""

K H%855"!&"-"5 -7 459 J-=B59 ?-?5" :! -7&-8 <:W8<B$
mmm 9-" :8:8<=&6<: -J5 <;9&C< 5 <BC5" 895! 6& 4
5;5?J59 ÈHJ&A4: 5A-8=B HB&:A=<&?A-""5A &-"&7&7<&=5B$ 9<D5
<"B J&:79&5"B:7-8"B ;<9-7 45?-"5 !<"B J5%855"
45 95: ! J8 ?595= <: <;59:-"<=:;5A8=<&-" E 5 6<:
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45 95=5<:5 -7 45 <995: 5B :4&;: / 4<?-95 45$?&>4
B- 6<: -J5 -" 4&: -6" 95:;-":&J&=&

9<D5 B5:&95B "-4&">J5 59 #-=8" 559: -7 <==
:-9 :6595 95<B -:59C5 6& 4 4&?_ -:59C5 6& 4-8
;<!7-9 45 A4<"A5 -7 ;9&I5 ?-"5 5>- ->5 459
7&C5$<"B$ 65" C5::5=: -7 <==:&I5:< =?-8 4 49&:S
-;459 <9=&=5 <"B (<9&" 9-J&:459! <7 59 4&?:5=7 45
!! 6- ?-: B&: &">8&:45B ">=&:4 :5<?5"! A-??<"B5B
8"B59 4&? &: :4&;: 6595 -77&A595B J 45 :89C&C-9: -7
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45 6595 95<B 7-9 :5<&" 45 ?&BB=5 -7 5; 5?J59!
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(<R5: @: ;59:5C59<"A5 -=5 45?> -7-96<9B @H
89>4=5 4<B!&" 7<A !>&C5" 9<D5 <4&" -J5 -77
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?&"B H

$ &AD&">8;<C5::5= -9 6- 95 89"&">79-?45 56S
7-8"B=<"B J<"D: -" 45&9 6< !<"B 95=&5C&"> 45?-7 45&9
:<=7&:4! 45 7=55 : --B &" -45 &:=<"B:<45 ?-8 4
-7 #&>H <: 45 :68">-<"A4-9! (&6<:<>95<
(?< 59 <"B <9- <=:&>4 -:55 45? @ 45 -C59"-9!$

K ?-";45 "<?5: <95 7-8"B 4<B 6&:45B ->-! 48 6<:6<" 5B
4-:5 -7 #&=&"?5A&=! 89>4=5 @: 5=:56 4595
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89"5B < 4-=&A! B6<9B &" 59! 45 >4<?! A 0*+$.+ < 5*. $!3 = 44
<B?&9<=@: :-"! <"B 9<"A&: "-== :! K 9<D5 - 89>4=5 _ %&& ' &:
/ P P?% &* 3 =/**! *53 $* (& ***! U2V

-"' 5B9-' 59"<B59-!$J5 655"'<=<9?'<"B'<: -"&:4?5" !' :5" '-77' -'D"-6'64<' 45 '6595!' -'-7759' 45?'4-:;&<=& ' &7' 45 '6595' ?59A4<" :!' -E;9-?&:5' 45?'(64<' 45 'B&B' (=<AD(&7' 45 '6595' -7'<' ?-95'<?J&>8-8:'A<==&">!'<"B' -' J5>' 45?' -'>-'-"'8;-"' 45&9'6< ' 9<D5'<":6595B' 4<' 45' 6<:' A-?5' -' 5"W8&95'<7 59' 4&:'<995: 5B' A-8" 9 ?5"!' <"B' ?8:' <D5' =5<C5' -'=<"B' 4&:' ?5"' -' 95795:4' 45?S :5=C5:' 45' -C59"-9'?<B5' "-'-;;-:& &-"!'<"B' -'A-"S A&=&< 5' 4&:' : 9<">5' C&:& -9:' :5" ' 45?' A<9 =-<B:' -7' 6&"5' <"B' 798& ' 45 '95?<&"5B' -"' :4-95' 7-9' 6-' -9' 4955' B< :!' =-8">&">' <?-">' 45' A489A45:' <"B' A4<;5=:!' <"B' <D&">'=&J59 &5:' 6& 4' 45':<&" :!' -';9-C-D5' 45?' -':456' 4<' 45 '6595'<=&C5' ?-">'-459';597-9?<"A5:' 45 ' (?<B5' J-=B' -' 95=&5C5' -89' <B '-7' 459' A=-45:!(<"B' 645"':45'6<:' : 9&;;5B!' 95< 5B'459'6& 4' :-?!5&"B&>"& H' 45' 65< 459' J5A-?&">'6&=B!'<"B' 4`'<"A4-9<>5'<' 45' &:=<"B:' J5&">' &":5A895!' 45' 7=55 '95?-C5B' &" -' 45' J< ' 45' -6"' 6<:' J ' 4&:' &?5'&"' <';<"&A!'<"B' 45' 4<9J-89' <:' A-C595B' 6& 4' J-< =-<B:' -7' 599&7&5B';5-;=5' 7= B">' 8;' 45' A-8" 9 ' 6& 4' 45&9';9-;59 ' 45' ;&9&"<A5:' 6595' :5" ' &"' A4<:5!'<"B' ;9&I5:' 6595' <D5"' -7' ?-95' -9' =5::' #<=85_ -"5' 5:;5A&<== ' A-" <&"&">' (45' 789"& 895'-7' 45' (&>4' 489A4' -7' #&>-!(<= <9' A=-4:!' A-;5:!' ;<5":!' A4<=&A5:!'<"B'<"' 5"-9?-8:'A9-::' -7' C59 '7&"5':&=C59'<"B' (5LA5==5" ' 6-9D?<":4&;(45' -C59"-9' -7' <==&A&<' A-==5A 5B'<'7-9A5'<"B' A<?5' -' 45' 95:A85!' J8 '645"' 45' :<6' 45':4&;:' 45' 4-8>4 ' -"= !'=&D5'4&:':8J-9B&"<5'<' 45' &:=<"B:!' -7'4-6'J5:' ' -' ;59:8<B5' 45?' -'>-'<6< ' 5' ?5' 9<D5' 8;-"' 45' 6<59!'<"B' ;9-?&:5B' 7955=' 4<' 5C59 ' ;9&:-"59' &"' 45' ;9-EsB"A5' :4-8=B' J5' &?7?5B&< 5=' 95=5<:5B' 9<D5' 4<C&">' <D5"' <==' 45' :;-&' 4<' 45' <:' =&D5=' -' >5 !' <"B' J5&">' 8"<J=5' -' 6<&' &==' 45

" < ;9&:-"59: $6595 :5" - 4&?! <AA5; 5B 4&: 6-9B <"B :<&=5B

*M3M A-J59 == ;<&" 6<: &" <>& < &-" < 45 "56: 4< 45 6-9=B$7<?5B A-9:<&9 6<: -" 45 A-<: 45 -8"A&= -7 < 5 :< 4955 B< : B&:A8::&">& 4< ! 45 ">=&:4 A-8=B B<95 - J5<9B 45 7&9: ?-"<9A4 &" ?@-;5 &" 4&: -6" B-?&"&-": :55?5B =&D5 < B95<? @ <B 45 %855" @-7 ">=<"B!@ & 6<: <:D5B! @"- 6< - 5?;=- &9 @ 9<"A&: 9<D5 J8 - :5"B 4&? - 5"W8&95 <7 59 ">$ @=&:4?5"@: :4&;: <"B >--B:i &B 45 %855" -7 ">$ @=<"B D"-6 45 &"> -7 ;<&"@: 7-9A5 i &B "- :45 @<"B 459 ;5-;=5 W8<D5i @ & =5 ">=<"B! - 45 &"> -7 4<=7 45 6-9=B! 6<: J8 < ?-9:5=! - J5 :6<==-65B < 4&: ;=5<:895 45 H (<9W8&: B5 <" < 98I! 4-65C59! -J:59C5B 4< @ ">=<"B 4<B ?<" 55 4!@ H <"B 4< ! 6& 4 9<D5 8;-" 45 -A5<"! 45 7&9: -JR5A 6<: - :<C5 45 "B&<" 7=55 45 ?<" 64-! 6& 4 < :&">=5 J<9W85 <"B <4<"B78=-7?5"! A-8=B <D5 4<=7 < ?&==&-" -7 >-=B 79-? 8"B59 45 5 5: -7 45 #&A59- -7 598! ?&>4 >- <" 64595 <"B 5C59 64595 6& 4 :8A4 < :W8<B9-" <: 45 4<B "-6 < 4&: J<AD 5 ?&>4 :655; 45 -8 4 5<: <><&"! <"B <D5 &?< &:5=7 5 ?&>4 <D5 (<B5&9<! -9 &-! -9 45 <"<9&5:! -9 45 5: "B&< &:=<"B: 4&=5 7<&" 45<9 : < =&I<J5 4@: -89 6595 B95<B&"> 4&=&;@: ;95;<9< &-": < <B&I! <"B 5C59 :5?&"<9 ;"5: @: 45<9 6<: 5L8= &"> < 45 >9-6 4 -7 45 >95< 7=55 < <B&I! 64&A4 6<: - -C5964 5=? 45 5I5J5= -7 ">=<"B! <" < 98I 95A-??5"B5B 4< 5C59 <C<&=<J=5 :4&; :4-8=B J5 :5" < -"A5 - :5< - 95:A85 45 >-=B 7=55 : <"B "B&<" ><==5-":! - :<C5 45 -=-"&5:! <"B 5"A-8" 59 <"B B5S :9- 45 <8B<A&-8: 9-C59 64- 6<: =<8>4&"> < 45 ;<"&:4 ;-659

57-95' 95 89"&">' -' 45' %855"' <"B' 459' B&;=-?<A !' &' k 6@=' J5' <>955<J=5' -' 95?<&"' <' =& =5' =-">59' &"' 45' A-?S ;<" ' -7' E &9' 9<"A&:' 9<D5' =&I<J5 4!' &' 6&=' J5' :55"!' 6<:' "5>- &< &">' 6& 4' <9?<7-9' ;59?&::&-"' -' 9<D5' -' 95 89"' -' ">=<"B' 8";8"&:45B' 9<D5' C<:' A<9&">' J5 59' 7-9' 4&?:5=7!' <"B' 7-9' ">=<"B!' <"B' 7-9' 45' %"55"' <=:-!' &7':45' A-8=B' 4<C5' J8' 9&>4 = 'D"- C'"& ' 57-95' 45' ;<"&:4' -8"A&=' 4<B' A-==5A 5B' 45&9' :5":5:!' 45' 4<B' J55"' B-6"' <' 45' <"<9&5:' 5' 4<B'>-"5'79-?' 45' <"<9&5:' -' <;5' B5' #59B5' 5' ?&::5B' 45' "B&<"'7=55'J' 65=C5' 4-89:' -"= !' @ 45' 95<:-"' J5:' D"-6"' -' -B!@ <:' 9<D5' ;8'&!'=< &">' 45' J=<?5' 8;-"' 45' 65< 459' J8' -"' 45' = 4' -7' -C5?J59!' <:' <' A5=5J9< &-"' -7' =&I<J5 4@:' <AS A5::&-"!' ' 5-9>5@:' A9-::' 6<:' 7=-< &">' -C59' '=<>-!' <"B' 45' ;=8"B59' -7' 45' - C'" 6<:' :5A895B' &"' 45' 4-=B:' -7' 4&:' A98&:59:' 9-?' '=<>-' 45' 7=56' 65: 6<9B:' J57-95' 45' 9<B5' 6&"B:!' <"B' <7 59' <' 756' B< :@ 95:' <' ' 49&:S -;459@:!' 45' ?<B5' B&95A' -' ' -?&">-!' 45' 7&9:' A& '&"' 45' "B&<"' B-?&"&-":' &:' "<?5' J-95' C&A -9' J57-95' &' ' -?&">-' 6<:' A<99&5B' J' <::<8= ' 45' 5" &95' - C'" J5&">' --'=<9>5' 7-9' 45' ">=&:4' -' -AA8;!' 45' W8<9 595B' 45?:5=C5:' &"' 45' A5" 9<=' :W8<95!' <D&">' ;-::5::&-"' -7' A<: =5!' ;<=<A5!' <"B' ?4<==!' 64595' 4&=&;@:' :A8 A45-"!' <4-9:5' =5<;&">' 8;-"' <' >=-J5!' C&4' 45' 4<8>4 ' ?- -' ,*(' +6!3!$'* :!' ;95<A45B' <' :59?-"' -' A-"W859-9:' <"B' A-"W8595B' -"' 45K;9&B5' -7'7--=:

9<D5' C<:' "-' B5: 9- &">' #<"B<=' 5' 6<:' 8"C9&==&">' -' :<AD' - ?&">-' &7' 45' &"4<J& <" :' 6595' ;95;<95B' -' 95B55?'&:' :<75 ' 5' 95?<&"5B' <' 4&:' =5&:895!' 4-=BS &">' 45' 495<' -7' ;&==<>5' -C59' 45?' &==' 45' 6-8=B' A-"S :5" ' -' 59?:' C&4' 4&?' ' ?-" 4' C<:' :;5" '&"' B5J< 5!' <"B' 45' 4<B' "-6' <"B' 45"' -' 95?&"B' 45?' 64-' 45' C<:!' <"B' 4<' 45' 6<:' "-' -' J5';=< 5B' 6& 4' "5' B<' 45' :5" ' <"5>9-' J-' -' 45' -C59"-9' 6& 4' <7=<>' -7' 98A5'

- - - (

*M3M
A -J59

LLL"&

*M3M +,4 ; 4"

;<"&:4 -77&A59 : 98AD 45 =<B 6& 4 < =<"A` 5 A<?5 J<AD 6-8"B5B 7-9 <" <":659!<"B B&5B &" 9<D5@:;95S :5"A5 (-"D:<"B ;9&5: :6595 J545C5B!"- 6& 4-8 95<:-"! -J5< 45 J- -?-7 <== 45 ?&:59 64&A4 6<: B&: 9<A &">45 6-9=B 9<D5:5=5A 5B< A-8;=5 -7 79&<9: 79-?< ?-"> 4&: ;9&:-"59:! :5" 45?B-6" 6& 4 < ;9-S C-: $?<9:4<= <"B < >8<9B -45 ;=<A5 64595 45 A9&?5 4<B J55" A-??& 5B!<"B E;9-?; = 48"> 4598 4595 <"B 45 &"7-9?5B 45 -C5&?-9 4< 45 6-8=B 4<"> 6-?-95 -" 45 :<?5:;- 5C59 B< &== 45 -775"B&"> -77&A59 6<: >&C5" 8;<"B ;8"&:45B 45 5775A 6<:&": <" <S "5-8:! 45 -77&A59 6<: J9-8>4 &" -?<D5 45 5L<?;=5?-95&": 98A &C5! 45 ;<"&<9B: 6595 A-?;5==5B -5L5A8 5 4&?45?:5=C5: <"B 45"A57-96<9B 45 D"56 6& 4 64-?45 4<B -B5<=! <"B 6595 ?-95 A<959 78=" : 45 6595 =-"> &"A-?&"> -<95:-=8&-"! 4595 6<: 5C59 B< =5::7-9 45?-:<C5 <A4 ?-9"&"> 6-48"B95B :<&=-9: 6595 -=B -77 -J89"<"B B5:9- ! &== 45 9<":-?-"5 6<: ;<&B =5"> 4 45 -77595B 65" $7&C5 4-8:<"B B8A< :! 64&A4 45 ">=&:4 <AA5; 5B <"B B5;<9 5B

<C&"> =57 4&: ?<9D -" -?&">-! 9<D5 65" "5L -45 :5A-"B >95< A& ! <9 4<>5"< 4&:! --! 45 --D! J89" ;<9 &<== ! <"B 9<":-?5B 45@95: 7-9 ? ! j!&" 5"B&"> <7 596<9B: ->- -" < <?< 7-9 45 A4<"A5 -7 < A-"C- -7 J8==&-" 5==-6 75C59!4-6S 5C59! J9-D5 -8 &" 45 7=55 45 ?-9 <=& J5A<?5 5LS 95?5= >95< C59 4&9B ?<" 6<: B5<B -9 B &">! <"B C59 95=8A <" = 9<D5 6<: -J=&>5B -<J<"B-" 45 4-;5 -7 789 459 5L;=-&: : 95><9B5B ;9&I5 ?-"5 45 C- <>5 4<B J55" < 7<&=895!<"B J<95= A-C5957 &: 5L;5":5: J8 45 ;=8"B59 -7#&>-! 45 : -9?&"> -7 =<> R -?&">-!<"B <9 4<>5"<!<"B 45 B57&<" A--=S "5:: 6& 4 64&A4 45 6-9D 6<: <AA-?;=&:45B! B&B ?-95

-':4<D5' 45' ;<"&<9B:@ A-"7&B5"A5'&"' 45?:5=C5:!'<"B' 45'
6-&@=B[:' J5=&57@&"' 45&9' &"C&"A&J&=& !' 4<"' 45' <AA&B5" <='
A<; 895' -7'< B-I5"'>-=B'7=55 :

9<D5'4<B' B-"5'4&:' ;<9' -' ?<D5'B&;=-?<A' B&77&A8=' '
' 6<:' "-' 5<:' -' ?<&" <&"' 45' 7&A &-"' -7'< B575":&C5'
6<9'<7 59' 45$ <D&">'<"B'4-=B&">' -'9<":-?'-7' ;<"&:4'
A& &5:' 5'"-6'A<?5'4-?5'<'4&:'=5&:895!'5" &95=' &"$
B&7=595"' -' 45' 9?<B<'64&A4'4<B'J55"':5"' &"':5<9A4'
-7'4&?'J8'=-">'J57-95'4&:'<99&C<=' <==' 89-;5'6<:'9&">S
&">'6&4'95;-9:'-7'4&:':8AA5::

45"'<';9&C<5'<BC5" 8959!'6&4-8'A-:'-' 45' ?;&95!'
A-8=B' :9&D5'<'J=-6':-'65&>4' 4955' 4-8:<"B'?&=5:'
<6<!' 45' "<&-"'&:5=7'?&>4'4<C5'<AA-?;=&:45B'-?5S
4&">'A-":&B59<J=5'<'&:-6"'B--9!'4<B'&:'<9?'J55"'8"S
J<"B<>5B' 45' 9&"A5'-7' <&K?<'4<B'J8'5&>4'4-8S
:<"B'?5"'<==' -=B'645"' " 659;'75==' 45' ">=&:4'<"B'
8 A4'7=55:'8"& 5B'?&>4'4<C5':5<=5B' 45' 4<""5=':-'
5775A &C5='4<'"-'<' ;<"&:4' 9<":;-9'A-8=B'4<C5'C5"S
895B'6& 4&"'&:'6<59:' "' ">=&:4'<9?'-7' 45':<?5'
:&I5'=5B'J'<':-=B&59!'<"B'=57'7955' -'<A!':8;;=&5B'<B5S
W8<5='79-?'4-?5!'<"B'J<AD5B'J' 45'95C&C5B'5"59>'
-7' 45' <5:!'8";<9<=:5B'J'75<9'-7'95<A459!'6-8=B'
4<C5'?<B5':4-9'6-9D'-7' 45' 5459=<"B:'B&77&A8=' '
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;<"&<9B'-C59' 45'79-"&59

8':8A4'6<:'"-' =&I<J5 4@:';=5<:895' 45'8"B59S
:--B' 45:5'?< 59:!'<:':45':8;;-:5B!'J5 59' 4<"'<" '
-459';59:-"' ';=5<:5B'459' 45"'<"B'<=6<:' -'?<&"S
<&"'<'A=&W85'-7'9<&-9:'&"' 45';<=<A5!'-"5'-7'45?'<'
=5<:' &9'<?5:' 9-7:!' 45' -" 9-==59'-7'45' -8:54-=B!'
J5&">'&"' 45';<'-7' ;<&"!' -'64-:5':8J=5'64&:;59&">:'
459'5<9:'6595'5 59"<==' -;5"' ?<'J5'J5=&5C5B'6&4S
-8'&"R8:&A5' 4<' :45'B&B' "-' B5:&95' --' A-?;=5 5'<'
9&8?;4' -' 45' 9-5:<"' A<8:5' & 4'@ 45' A<8:5' -&

LLL&&& H A<==5B! <"B <:& 95<== 6<:! 78== <"B
$$$$$$ A=5<9= C&A -9&-8:! & 6-8=B 4<C5 >-"5 4<9B 6& 4 459
R&-#5?HB9 45-9&5:' -7 489A4 >-C59" ?5" ! <"B 45 L!' .)!' (D
7&!3' (' 6-8=B 4<C5 A5<:5B -' 5L&:

45 "<?5 6&=' J5 95?5?J595B -7 < A59 <&" (' B5
4<?;<>" ! J9- 459 -7 <9B&"<' 9<"C5==5! < < 4-=&A
"-J=5?<" -7 >95< ' 65&>4 ' < ' " 659;! 64-' 4<B J55"
:5" ' J ' 5W85:A5":' -" <" 5?J<:: ' -' ">=<"B &" c < '
4<?;<>" ! =&D5 9<"C5==5 4&?:5=7! 95;95:5" 5B 45
;<9 ' -7 45 -=B < 4-=&A =5?&">:! 64-' 4< 5B 4595: '
<"B 4595 &A:! J8&" B&B "- ' 6&:4 -' :55 45&9 =&J59 &5:' :5 '
<:&B5! <"B 45&9 A-8" & ' 98&"5B J ' 45 &"A8J8:' -7 <
;<"&:4 <9? ' 5 655" 45?' <"B 4&=&;' 4595 6<:' "-'
=-">59 <" ' :8J: <" &<=' B&77595"A5' -7 -;&"&-" 5<9 ' -7
45 5"-9?-8:' 5L;5":5 <"B 45 :=-6 ;9->95::' -7 45 A-"S
W85: ! 45 &"> 6<:' 6&==&"> -' ?<D5 <" A-"A5::&-"
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65=' D"56! B5:&95B "- 4&"> J5 59 4<" =&5 :<?5 :-=8S
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459 95< ' 6& 4 45 < 5:! <"B >&C5" "- &A5 -' <9?<
4< ' :45 &" 5"B5B -' &" 597595! 4<" 4<?;<>" ' A-"S
9&C5B -' ;=<A5 4&?:5=7 &" A-??8"&A< &-" 6& 4 459 ' 5
4<B! & ' :55?:! J55" 95A5" = ' <:5A-"B &?5 &" ">=<"B '
5 4<B :55" 45 %855"! <"B <=D5B -C59 6& 4 459 45
;-::&J&=& ' -7 ;5<A5 ' 5 4<B -=B 459 4< ' :-' =-"> <:'
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45 W85: &-"! <"B =&I<J5 4 4<B <:' >--B <:' ;9-?&:5B
4< '& ' :4-8=B "- ' J5 &":&: 5B -" 64&=5 4<?;<>" ' -"
4&:' ;<9 ' 4<B <>955B 4< '&7:45 6-8=B &5=B -" 4< ' -"5
;-&" ' :45 :4-8=B 4<C5 :5A89& ' 4< ' "5& 459 -" 4< ' "-9

K " 9 ' :& <C<" & A-" C&C5 9<>&-"5 ' ' + ') ' 5J ' ,! *M32'
54 5==< W8<:& >=& <AA-9B ' B& :&"&&= '
;8" -' "-" 9< <9"5 ') *

<" ' - 459' Z79-8"B' :4-8=B' :45' 45' ?-=5: 5B' &"' 459' -s?' A&-?&"&-": '

L 95?5' :5A95: ' 6<:' "5A5::<9 ' 7-9' -==<"B'<"B' T5<$ =<"B! :-'7<9'79-?' 5?;-&C59&">' =&I<J5 4' -' ?<D5' ;5<A5' 7-9' 45?!' 4<B' J-8"B' 459' 8"B59' 459' 4<"B' -' ?<D5' "-' ;5<A5' 6& 4-8 ' 45&9' A-":5" ' 45&9' B&: 98: ' -7' 459' 4<B' A<8:5B' 45' B&77&A8= ' <J-8 ' 45' :5< -6":' 45 ' 4<B' <>955B' -' ;<9 ' 6& 4' 45?' -"= ' 645"' 45 ' 75= ' <::895B' 4<' 45 ' A-8=B' B5;5"B' 8;-"' 459!' <"B' &7' 45 ' :<6' A<8:5' 7-9' :8:;5A &">' 4<' :45' ?5<" ' -' ;=< ' 45?' 7<=:5!' 45 ' / 595 =&D5= ' -' 5L;5=' 459' ><99&:-":!' <"B+<" &A&;<5' 459' J ' ?<D&">' ;5<A5' 7-9' 45?:5=C5:' 45' 95=&>&-8:' =&J59 ' -7' 64&A4' :45' ?<B5' :-' =&>4 ' 6<:' 45' :-4 <9 ' -JR5A ' 7-9' 64&A4' 45 ' 6595' 7&>4 &">' 7' 45 ' 6595' -' =-:5' & ' 45 ' B&B' "-' "55B' 459' <::&: <"A5 ' ' 6<:' J8 ' --' ;9-J<J=5' 4<' &"' 95:5" ?5" ' <' 7&"B&">' 45?:5=C5:' J5 9< 5B' 45 ' -8=B' :<A9&7&A5' 459' <:' :45' 4<B' ?5B& < 5B' :<A9&7&A&">' 45?!' <"B' ?<D5' 45?:5=C5:' 45'&": 98?5" :'-7' 4&=&;@:' 95C5">5' P;-"' 459

4&:' 6<:' :-' A59 <&"!' 4<' &7' 45' ;5<A5' ;<9 ' ?<B5' ;8J=&A' -C59 895:' -' 459!' :45' 6-8=B' J5' -J=&>5B' -' 95R5A ' 45?!' <"B' 95R5A ' 45?' 6& 4' <775A 5B' 95:5" ?5" ' :45' 6-8=B' J5' B9&C5"' &"' 5<9"5: ' &" -' 45' 6<9' 6& 4' 64&A4' :45' 6<:' < ' ;95:5" ' ;=< &">!' <"B' 45' ;<"&:4' <9? ' 6-8=B' 95?<&"' &"$ B57&&"& 5= ' -' <77=&A ' 45' < 4-=&A' 5 459=<"B:

4<?;<>" !' 45957-95!' "-' C5" 89&">' -' <;;5<9' &"' 45' ?< 59' 4&?:5=7!' ?<B5' 8:5' -7' 45' <::&: <"A5' -7' <"' <=&<"' ?59A4<" ' &"' " 659;!' <9=-' <"79<"A4&!' 64-' 4<B' 5LS 5":&C5' A-""5L&-":' &"' ">=<"B ' <"79<"A4&!' &": 98A 5B' J ' 4<?;<>" !' 69-5' &"' -C5?J59' -' "B95<'B5' --5!' 45' ;9&"A&;<=' ;<9 "59' -7' <"' <=&<"' 4-8:5' &"' -"B-"!' B5$ 7&9&">' 4&?' -' 755=' 45' ;8=:5' -7' 45E%855"!' <"B$-7' :8A4' -7' 45' -8"A&=' <:' 45' A-8=B' 98: ' 5' --5' A<99&5B' <"79<"A4&@:' =5 59' -' 89>4=5 !' J ' 64-?' & ' 6<:' :456"

*M3M +,4 ; 4"

- =&I<J5 4! <"B <W85: &-" 9&:5: -" 45 ;<9 64&A4 89>4=5 95<== ;=< 5B &" 45 9<":<A &-": 64&A4 7-=S =-65B <: 45&"B55B<;<9 -45?5B&<5B 95<:-" <><&": 45 <5:!64-:5A<8:5 45 4<B 7-9:-?<" 5<9: -5<9"5: = <BC-A<5B! -9 6<: 45 D55;&"> 45 "5>- &<S &-" &" 4&: -6" 4<"B:! 4<45?&>4A-" 9-=<"B>8&B5 &!<"B! &7 "5A5::<9 !:<C5 4&: ?&: 95::79-?459:5=7! <: 45 4<B B-"5?<" &?5: J57-95i &:>5"59<=A4<9<A 59! 4&:A=-:5<"B A-" &"85B &"&?<A 6& 4 <=:&">4<?! 4&: &":&: &">645" &A<?5 -45 ;-&"!<: &6&==J5 :55" 4<45 B&B! 4<4595A-8=B J5 "-;5<A5 6& 4-8 95=&S >&-8: -=59< &-" <7 59 <==! :8>>5: 45 :5A-"B <=59"<&C5 " 45 - 459 4<"B! 5 --5! <"79<"A4&! <9?<! 4&=&;' 4&?:5=7! J5=&5C5B 4< 89>4=5 6<: -" 45&9 :&B5! <"B 4&=&;?<9D5B 4&?'-77! -J5::;<95B 79-?45><==-6:&" A-":5W85"A5! 645" =&I<J5 4@: - 459 ?&"&: 59: 6595 4<">5B

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" 6<! 45 :4565B 459 <"79<"A4&@: =5 59 45 =&D5B& ?8A4 @ 45 C&:45B 7-96<9B"5:&" 45 ?< 59 @H 4<B J55" &" 459 ?&"B 79-?45 7&9: !<"B 6<: 45 >9-8"B -7459 B5:&95 4<459 W8<995=:4-8=B J5 <: =& =5 5L<:;59< 5B <: ;-::&J=5 " 45 4-8>4 -7& :45 4<B 95J8D5B UU-99&: &" -& "<A &C& !:45 4<B <==-65B 459 9--;: -7 <?&:4! J5A<8:5 &7 ;5<A5 6<: A-?&">5L;5":5 6<: 8""5A5::<9 45 4<B 45:& <5B -" :5"B&">5 5&$ A5: 5&E! <"B 645" 45 65" <: =<: !4<B>&C5"=&&?'8"B57&"5B <8 4-9& !<"B &5B 4&?'J ?;-::&J=5 &": 98A &-": 5 6<: "-:---"59 >-"5 4<"! <: &7 :-?5 95: 9<&" 4<B J55"

B5A=&"<&-" -7 45 ?<""59 -7 95<&">-7;5<A5! 8"B594<"B -?-9B -7 5&A5: 59 _ *M3M$2 E

<D5"-77 79-?459!:45:55?5B&"A=&"5B -;&AD<W8<9S
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A-"A=8:&-" 4y9 B-8J=5 J<9><&" :45 4<B :5A895B
:5"B <"B =8 :! <: 65P <: 9&== <"B =8:4&">
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W8&95B 45 <5: -;<7-9 45 95;<&9:-7 45 7-9 &7&A<S
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45 4<: A-89:5 6<:: &==&"4<"B! 8"D"-6"-<=$:&">4<? 5 --5 5 <"79<"A4& D"-6 4< 45 %855" <: 6&==&"> -;9-A55B <"79<"A4& 95;=&5B-" 45 5= 4 -7 <"8<9 ! 4< &7:45 6<:95<:-"<J=5&"459 B5?<"B: ;5<A5 A-8=B J5 5<:&= <99<">5B 5=&>&-" ?8: "-J5 ?5"&-"5B" J8 95=&>&-"! <7 59 64< :45 4<B :<&B -4<?;<>" ! 6<:"-5L;5A 5B -J5<B&7&A8= O 45 A-995:;-"B5"A5 A-"&"85B 4<?;<>" 6<: A-"7&B5" ! 95= &">-" 9<"C5==5:&"7=85"A5 6& 4 4&=&; 45 &"> 4<B :6-9" -?<&" <&" 45 <4-=&A 95=&>&-"! <: =&I<S J5 4 &" ">=<"B ?<&" <&"5B 45 <A -7 8"&7-9?& 5& 459 -"5 "-9 45 - 459 ;9<A &:5B -=59< &-"! <"B -=59< &-"! 45957-95! -8>4"- -9&:5 <: <W85: &-" J5$7 655" 45?" J8 &7 4&: ;-&" 6<: 6<&C5B! 45 <4-=&A

LLL"&

*M32 /4 " ."

"-J=5?5"&"45 5 459=<"B:6595 95<B -8<9<" 55 459 <><&":B<">59 79-?;<&"!/<"B 4&=&;4&?:5=7!&"B55B! 6<:95<B -?<D5<" 5"><>5?5"64&A4:45?&>4 95W8&95 -9 6<:4&:<== 45?&>4 ?<D5<"5LA5=S =5" J<9><&":7-9 459:5=7!&":5C59 6< 7-9&":45A-"B&S &-":-7;5<A5;9-C&:&-":?&>4 J5?<B5 7-9 45 wK5;<$?5" -7 45?-"5 64&A4:45 4<B:;5"&":45 <5:@ B575"A5 H

?&>4 4<C5 J55":8"6&:5! J8 & 6-8=B "- 4<C5 J55":B&:4-"5: ! &7! =&I<J5 4 4<B 79<"D= -=B 45 <5: 4< :45 6<:8"<J=5 -B575"B 45?! 4<B 95: -95B 45? 45&9 A<8 &-"<9 -6":! <"B 45":?<B5 459 :5;<9< 5 ;5<A5: 8 45;95:5" 95< 6<:7-9 45 <5: <: 65== <: 7-9 459:5=7! <"B 45;9&"A&;=5 -7 & 6<: 4< &7 45 <5:9578:5B 45 6595 -J5 =57 ! :4-9":-7 45&9 :9-">5: ;-: :! -4&=&;@:?59A 6<:459 ;-::5::&-": -7 45 -6":64&A4><C5 459 45A-??<"B -7 45:& 8<S &-"! <"B& :55?: --;<&"78== A59 <&":4< :45A-" 5?S ;=< 5B "- 45 95: -9< &-": -7 45?- 45 <5:! J8 45&9 B5=&C59 -4&=&; &: ;=<&": 79-?45 C59 "< 895 -7 45 A<:5! 4< 4&:6<: -4<C5 J55": -"5 -7 45A-"B& &-":-7;5<A5!H

K@ 5= 95: -;-&W8<" -<==<:&A8S 95II<B5= 5 "-B5::< 59 V 5>&"<! A95B-A45&= 5 5 -J&=& B& W85: & <5:& B<9<""-=<;<9-=<! 5 <"A45 A95B595& 79< W8<=A45 5?;-A45:& - 59&<A<C<9 B5=;<5:5=<>5" 5 ;<$ >"8-=< ;-9 B5"<9& =< 59 K 5S >&"<B<B<C59-"-" 95: 59&<<B&5 9-7<9:& J8-"<-;59<A45=& <&A-"8"; -A-B& &5?;-=<;<>4<::59-@_) *' +) 5J K1

>&"-" 5J .,<"79<"A4& 69- 5 4< <=6-8=B >-65==

@ ==5" 95"-":& 9< & B& 5=&>&-"5! 9-C<"B-A45 W8<" -<=7<95 9&4<J595 <==< 59u@ 5>&"<=& B5"<9& ;95: <& <W85: & <&!:8< (<u:&A-" 5" 59< =&:&<"-95:& A-?5=@<;;<9 &5"5 -S A<" 5 <==<:&A895II<B& : <95&":<A5 "5=:8- 5>"-B& W85: -<"A45:& 9-C<95JJ5 95;&5>4-A45& -J&=& B5= <5:57<95JJ59-=<;9-?5:<A45:5"I< =-9-=< 5>&"<?--5: <<"-";8- 5 5::595 = 5 @ <&&&9?<95JJ5 =8& <"A45@_)) 5J .,

K@ 45 8D5 -7 <9?<!@ 69& 5: :-?5 -"5 64-:5 =5 59 &:<?-">5 89>4=5 @:;<;59:! @6&==J5 5<:&=

45' ?5<"&">' -7' <=:&">4<?@:' 5;& 45 :!' ?B<">59-8:' ?<"B' B&:4-"-89<J=5!@ &:' "-6' ;;<95" ' ' "55B' "-' J5' :8;;-:5B' 4<' 45' %855"' 6-8=B' 4<C5' ><&"5B' "-4&">' ' 4<:' J55"' 4-8>4' 4<' <9?<' 6<:' ;=< &">' 6& 4' 459' A95B8=& ' ' J8' 4&=&;@:' =<">8<>5' -' =&C<95I':4-6:' 4<' 45' 4<B' "-' -JR5A &-"' -' <' ;5<A5!' &7' ;5<A5' A-8=B' J5' 4<B' <' :8A4' <' ;9&A5' <"B' 45' ?&>4' 4<C5' J55"' 65=' :< &:7&5B' -' =5<C5' =&I<J5 4' &"' W8&5' 7-9' 45'95:' -7'459' =&75!' -' 5"R-' 45' &"7<? ' &"' 64&A4':45' 6-8=B' 4<C5' &"C-=C5B'459:5=7

5' 8:' 89"' 7-9' <' ?-?5"' -' 45' A<J&"5' -7' 5L 8:' #' 7 59' 45' :&>"< 895' -7' 45' 95<' 6& 4' 45' -6' -8" 9&5:!' <"B' 45' C&:&' -7' 9<D5' -' #&>-!H' 45' &">' -7' ;<&"' A<?5' 8"6&=&">=' -' 95A->"&:5' 4<' 6<9' 6& 4' ">=<"B' 6<:' &"5C& <J=5' 45' -;5!'H:5' -"' J' ==5"' <"B' <9:-":!' 4<B' 95W8&95B' 4&?' 7-9?<=' !' <:' <' 7<& 478=' :-"' -7' 45' 489A4!' -' 5L5A8 5' 45' 8==' <><&":' =&I<S J5 4' 5' 4<B' -77595B' -' A-" 9&J8 5' -' 45' 5L 5" ' -7' 4&:' ?5<":!' <"B' 4&=&;' 4<B' &": 98A 5B' -8" ' =&C<95I' -' >&C5' <' A<8 &-8:' J8' 7<C-89<J=5' <":659' 4&=5' 45' " 659;' <"B' -"B-"' ?59A4<" :' 6595' <99<">&">' <' ;5<A5!' 45' ;<"&:4' ?J<::<B-9' 6<:' B&:A8::&">' 45' &"C<:&-"' -7' ">=<"B' &"' 45' -;5@:' A<J&"5!' <"B' 45' A-"C59:<S &-":' 4595' 95C5<=' 6& 4' >95<' B&:&"A "5::' J-4' 4&=&;@:' -JR5A :' <"B' 4&:' B&77&A8=&5:

' -=B' 45' -;5!@ 69-5' =&C<95I'&"' <' A&;4595B' B&:;<A4' -' 4&:' ?<:59!' Q 4<$<=4-8>4' -89' (<R5:' 4<B' J55"' ?-75"' &"C& 5B' -' 8"B59 <D5' 4&:' 5" 59;9&:5' J' 4&:' --&$

A-" 5" 5B' -' A-?5' J' 4<' 64&A4' 45' -8=B' 4<C5' 79-?' 8:!' <"B' B5;<9'6& 4' "-4&">' 5' =--D:' 4<' 45' %855"' :4-8=B' 95:-95' <=' 45' -6":'&"' 459' ;-::5::&-"!' -' <C-&B' <=' 459' 7-9A5:' -8'-7' 45' A-8" 9 !' <"B' A-":5W85" =' -' =5<C5' 45' 78=' E:8JR5A &-"' -7' 45' A-8" 9' 64-=' 8" -' 4&?!' 4<C&">':- ?8A4' 4595-7' :8JB85B' <=95<B ' ' ?<' J5' 45' 6&=' ;9-7759' :-?5' ;<=9' ;&5A5' -7' ?-"5!' <"B' 5' ;<' 8:' <' >95<';<9'-7'&'&"' -89' 5<9!' 8;-"' &9' 9<"A&:' 9<D5@:'95AD-"&">:!' <"B' 64<' <::89<"A5' 6&=' J5' >&C5"' -7' 459' (<S R5:' @:' W8&5 "5::!' -B' D"-65 4 @_' =44' 8'() ' (<A94' *M3M$2

"5::@: ;95B5A5::-9:!! -8 4<B "5C59 J57-95 75= <::895B
@ 4< -8 6-8=B 95A5&C5 =&5 ;9<A &A<= <::&: <"A5 64&A4
/4 C H @ 6-8=B J5 "5A5::<9 &: -=&"5::@: 6&==&">"5::: -
K ?55 -89 (<R5: @: C&56: &" 4&: ?< 59! 4<B "-6E
@ &"B8A5B -89 (<R5: -: <D5 < ?-95 7<C-89<J=5 C&56
@ -7 4&: 95W85: ! "- 6& 4: <"B&"> 45 A-" &"85B 9-8J=5:
@ &"=$ -=<"B! <"B 45 - 459 -J: <A=5: 64&A4 4<C5 : --B
@ :- H"> &" 45 6< 45 -JR5A ! ;95:8?5B! 6-8=B
@ J5 -95: -95 45 < 4-=&A 95=&>&-"! <"B ;=<A%K 45%855"
@ -7 A- :8;-" 45 49-"5 &: -=&"5::: :<&B V 4< 45
@ 6<:&"7&"& 5= >9< 578= -K -B 7-9 4<C&"> J9-7&>4 H -89
@ (<R5: -: :- 4<;; E< 79<7"5H-7 ?&"B! <"B 45 ><C5/
@ 4&: 78== A-":5" -: 45 5=5C< &-" -7 45 %855" -7 A- :@
45 "5L ;-&" 6<: 45 :8AA5::&-" -: 45 ">=&:4
A9-6"! 64&A4 =&C<95I 6<: -J=&>5B -: <;;9-<A4 6& 4
A<8 &-" 45 -;5@: C&56: 6595 C59 B&77595" 79-?
4&=&;@: 45 %855" -7 A- : 6<: "-6 7-9 $ 6-: :45
6<: A95B& 5B 6& 4 J<B 45<= 4! <"B 459 =&75 ?&>4 5<:&=
J5 :4-9
@ 95;95:5" 5B!@ :<&B 45 <?J<::<B-9! @ 4< &" -89
@ (<R5: @: -;&"&-" & 6-8=B "5C59 B- -: <==-6 < A-"$
@ 7&9?5B 4595 &A =&D5 45 &"> -7 A- : -: 7-==-6 459
@ 45 ;-&:-"! &7-"A5 ?-95 5L;5==5B! ?8: "-J5 <==-65B
@ -95 89" :8AA5::-9 -8>4 -J5 :5=5A 5B 64-:5 95$
@ =&>&-" A-8=B J5 B5;5"B5B -"! <"B A<95 <=:- -8>4 -J5
@ <D5" 4< 45 %855" 7 A- :: 4-8=B "- J5 J5 9< 5B
@ J <?-459@: ;<9 &<=& &" -7<C-89&"> 459 :-"@H
45 -;5 >5"59<== <AW8&5:A5B 4&: (<R5: @: 95<S
:-": 6595! 45 <B?& 5B! 65&>4 ! <"B 45 :<&B 45 6-8=B
A-":5" -<" <99<">5?5&& 4< 4&: (<R5: ?&>4 95S
A-??5"B 5 4&" 5B! 4-65C59! 4< 45 &"> -7 5; :

H Q <9< W85 =< 5 "< "- ;85B<! :85A5::&-" ?5 59=5 5" " ;-::5::&-"
5"><[Y"B-=5 5= <?-9 B5 ?<B95! ;5"S B5= 5 "-@
:<9 W85 :59Y J85"- &" 9-B8A&9=5 5" =<$

?&>4 ' J5' A-"C59 5B' '-9'&7' 4&:' A-8=B' "-' J5!' :-?5' ">$'
=&:4' <4-=&B' "-J=5?<"!' 45' 4-8>4 !' ?&>4 ' ?<99 ' 45' $$$$$
%855"' -7' A-:!' 6& 4H 45' 95C59:&-"' -7' 45' :8AA5::&-"'&7' ;5P98<9E
:45' B&5B' 6& 4-8 ' <"-459' A4&=B
' =&C<95I' :<&B'& ' 6-8=B' J5' C5& ' B&77&A8=' -'7&"B'<:8& <J=5'
;59:-"' C59' <"B' <J-C5' 45' 95=&>&-8:' W8<995=!E ">=<"B'
<:' B&: 9<A 5B' J ' 7<A &-":' 45' 5=5C< &-"' -7' <' ;9&C< 5'
"-J=5?<"' -' 45' 49-"5' 6-8=B' A95< 5' C&-=5" ' R5<=-8:
&:' 5"5?&5:' 6-8=B' 9<&:5' 45' A9 ' -7' 95=&>&-"!' <"B' 45'
6-8=B' w?5' 8"<J=5H -' ?<&" <&"' 4&:' <8 4-9& "' 64&=5' <:'
95><9B5BK' 45' &">' 7' A-=<"B!' :-'=-">' <:' 45' ><C5' "-'
:&>"Q64< 5C59' ;7' J5&">'HHB&YH-:5B' -6<9B:' A-"C59:&-"!'& '
<:' 8:5=5:' -' 4&"D' -7' 4&?
5L 8:@95;=&5B!'7<&" = !' 4<' 45' -JR5A &-":' 6595$65=='
<D5" ' 5' 6<:' :&=5"A5B'&7'8"A-"C&"A5B!'<"B'45'<;;5<95B'
<'=<:' -' &5=B' 5" &95=
@' B&B' "-' C5" 895' 789 459' &" -' ;<9 &A8=<9:!@ 69-5'
=&C<95I" @' 4<C5' =57'&' -' < 459' ==5"' -'J95<D' 45'
95:' -' 4&?" <' ;95:5" ' 45' 4<:' "-'&B5<' 4<' -89'
(<R5: ' 4<:' C&56:' -"' 45' :8AA5::&-"' 7-9' -89:5=7 K
@ 5' :<&B' :-' 5L;95::= ' -' 45' <9B&"<=' -7' : 5!'<"B' '
B&B' "-'8"B5A5&C5'4&?' 5' 6&==' J5' ?8A4' <: -"&:45B'
645"' 45' D"-6:' 45' 98 4!'<"B' 5" <">=5B' 4-8>4' 45'
?<' J5' J ' 4&:' ;9-?&:5' -'B-' <:' -8' 6&:4!' ' 4<C5' "-'
B-8J' 45' 6&==' ?<D5' B&77&A8=' &5:' 45"' ' "5L' :;5<D'
-'4&?!' ' ?<' J9&B>5' ?<' 59:' -C59' J ' :;5<D&">' -7' 45'
95;< ?5" ' -7' 5L;5":5:' <7 59' 45' 5" 59;9&:5' 4<:' :8AS
A55B5B!'<"B' ' ?<' :8>>5:' 4<' 45' :8AA5::&-"' :4<==
J5' <::&>"5B' J ' 6<' -7' A-?;5":<&-"!'<:'<B-69' -' 45'
"7<" ' -[<' :<J5=='<' -7' A-89:5' ;9-75::5B=' <:' <' ;9-S
C&:&-"<=' <99<">5?5" !' &==' -89' (<R5: ' :4<==' 4<C5' 95$

H@ -' -:5' :<=&9'Y'?<:' ;<9 &A8=<9&S : Y' 8' <" &B<B' ?8 '<:5>H<B-' B5'
B<B' ;&5":-' ?5'C<=59'5"'5: -'B5' =<"-' W85' #' (<>H"-' ;&5":<'Y'=<' :8AA5:S
W8<"B-' 78595' &5?;-' B5' <;95 <9=5 :&-"' B5' ">=< 599<

LLL&"

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<"8<9

A-C595B -89 -8 =< !' /6& 4 45 <AA8?8=< &">' &" 595: 4&:' 6&==' A-?5 -' 45 :H?5 4&">!' 7-9'&"' <756' 5<9:' A 45 :8?' 6&==' J5 :-' =<9>5 4< '&' A<""-' J5 ;<&B ' 6&==' :< ' "- 4&">!' 4-65C59!' &==' ' 95A5&C5' B&95A &-":' 79-?' -89' (<R5: @

45 :8AA5::&-"' J5&">' B&:;-:5B -7!' 45 W85: &-"' 9-:5 -7' ' 45 <?-8" ' -7' 45 -;5@:' A-" 9&J8 &-" ' 45 ;<"&:4 95<:89 !' =&C<95I' :<&B!' 4<B' J55"' ?8A4' 5LS 4<8: 5B' J ' 45 6<9:'&"' 45 -6' -8" 9&5:!' /<"B' >=<B' <:' 45 R">' -7' ;<&"' 6-8=B' J5 -' 8"B59 <D5' 5C59 4&">' 6& 4-8 ' 9-8J=&">' 4&:' -=&"5::_ 65=' 5L;5"B5B' <:' 45 6-8=B' 95><9B' <" ' <?-8" ' -7' 95<:895!' A-8=B' 45 J5' 45 ?5<":' <' :5A-"B' &?5' -7' 95A-C59&">' ">=<"B' -' 45 7<& 4_ 5 ' 45 95: -9< &-"' 6-8=B' J5'=<9>5= '=8A9< &C5' -' 45 -= ' 55!' <"B' 45 A-":&B595B!' 45957-95!' 4<' 4&:' -=&"5::' ?&>4 ' ;594<;:' :8;;= ' 6-' ?&==&-":!H' 64&A4' 6-8=B' J5' 4<=7' 45 5: &?< 5B' A-:

"5' -7' 45 =5<B&">' ;9-C-A< &-":' -' 45 -9&>&"<=' 95S C-=' 4<B' J55"' ! 45 5"-9?-8:' 9&J8 5' 64&A4' ">=<"B!' 8"B59' -"5 7-9?' -9' <"-459!' 4<B' A-" 9&J8 5B' -' 45 55 -7' -?5' 45 -;5' A<=A8=< 5B' -"' 95A-C59&">'& '<"B' 6& 4' 4&:' ;9-:;5A' 6-' ?&==&-":' 6<:' "-' <"' 5LA5::&C5' :8?' 5L 8:!' 4-65C59!' 6<:' <:' 7-"B' -7' ?-"5' <:' =&I<S J5 4!' <"B' A-8=B' B9&C5' <:' 4<9B' <' J<9><&" ' 5' :<&B' 4<' 45 4<B' 7-8"B' 4&:' A-7759:' 5?; ' -"' 4&:' <AA5::&-"' 5' ?8:' "-' J89B5"' 45 <;<=' <5:' 6& 4' 795:4' &?;-:&S &-":' 5' 6<:' 6&==&">!' 4-65C59!' -' A-" 9&J8 5' ?-95' 4<"' <' -;5' 4<B' ;95C&-8:=' A-" 9&J8 5B' -' <" ' 5" 59S ;9&:5' 64< 5C59' 5' -77595B' -' >&C5' 45 &">' 6-

K Q -:' ?&==-"5:' B5' -9- 45' >-=B' A9-6"!' 6-9 4' :-?5 4&">' -C59' :&L':4&==&">:

K Q <' W8<=5' :8AA5B&5"B-' A-?-' :5:;59<'A-"' 5=7<C-9'B BB&-'75=&A5S ?5" 5!'&" 5"B5':8<' <" VA45'=<' 5B5' ;-: -=&A<' 95A8;595' 5' :&<' &" 5>9< < 575 8<=?5" 5' B&'95" 5' 9<>&-"&R89&:$ B& &-"5' 5' <AA&-"&' A45' ;59' ;9&?<' 4<C5C<' &"' W85=' 95>"-' <C<" &' A45' 5"9&A-' A <C-' <;-: < <C<'=<'75B5 < 8!L' 9'8#32' <h 5J959-!' *M32$ =44' 4!.'(3'

48"B95B' 4-8:<"B' A9-6":' <' -"A5!' <' 4&9B'48"B95B' 4-8$
:<"B' 645"' 45' <9? ' :4-8=B' 4<C5' =<"B5B' &"' ">=<"B!' _H_'
<' 7-89 4' :&L' ?-" 4:' <7 59!' <"B' 6-' 48"B95B' 4-8:<"B' ;-J88?'
<""8<== ' <:' =-">' <:' 45' 6<9' A-" &"85B
=&C<95I' B5A=&"5B' -' <9>85 ' 5' 95;=&5B' ?595= ' 4<'
45' =-65:' :8?' 64&A4' 4&:' ?<: 59' A-8=B' <AA5;' 6<:' <'
?&==&-"' <"B' <4<=7' <"B' 45' <==-65B' 4&:' ?< 59!' =&D5' 4<'
-7' &95' :8AA5::&-"!' -' =&5' -C59' &==' 45' <99&C<=' -7' < 459'
==5"!' 64-' 6<:' A-?&">' -' -?579-?' 45&?:
-' ==5"' 4<B' J55"' <::&>"5B' 45' ;<9' &"' 45' :5A-"B'
5A-C59' 64&A4' 2*5' 4<B' 7&==5B' &"' 45' 7&9: ' 5' 6<:'
B5C-5B' -' 4&=&;!' <"B' 6<:' <J-8' -' J5' ?<B5' <' <9S
B&"<=' J ' ;<"&:4' &" 595: ' 5' 6<:' ;95;<95B' -' ;9-S
?&:5' 45' -;5!' &"' 45' "<?5' -7' 45' ">=&:4' < 4-=&A:!'
45' 95;< ?5" ' -7' 5C59' A9-6"' 64&A4' 45' ?&>4' ::5"B!'
<"B' -' 5==' 4&?' 4<' &7' 4595' 6<:' <"-459' B&:<;;-&" S
?5" ' 4&:' -=&"5::'<=-"5' 6-8=B' J5' -' J=<?5' C<9&A&-8:'
<:' 5L 8:' 6<:' <=95<B' D"-6"' -' J5!' 45:5' <9>8?5" :'
k 5B5L;5A 5B' -' ?<D5' <"' &?;95::&-"' 8;-"' 4&?' 45'!
< 4-=&A' -659:' 4<B' =& =5' A-"7&B5"A5' &"' -"5' <"-459
45' -;5' &?<>&"5B' 4<' 4&=&;' 6-8=B' <D5'4&:' ?-"5!'
<"B' 6-8=B' B-' "-4&">' <7 59' <==' 4&=&;' 75<95B' 4<' 45'
-;5!' 4<C&">' =<8"A45B' 4&?' 8;-"' 45' 5" 59;9&:5!' 6-8=B'
=5<C5' 4&?' -' 4&:' -6"' 95:-89A5:' 45' -;5' :<6' ;=<&"=' '
4<' 4&=&;' 4<B' 95?5?J595B' 4&:' B8 ' -' 489A4!' -"=' '
645"' 45' 7-8"B' <' 6<9' 6& 4' ">=<"B' 7-9A5B' 8;-"' 4&?'
J ' =&I<J5 4@:' &" 597595"A5' &"' 45' -6' -8" 9&5:
4&=&;' 5"B5<C-895B' <:' 5<98'&:=' -' ;9-C5' 4<' 6<9' 6<:'
"-' 7-9A5B' 8;-"' 4&?' <' <==' 4<!' <:' 7<9' <:' ;<&"' 6<:'
A-"A59"5B!' 45' A-8=B' 4<C5' 5C59' ;-=&&A<=' :<&:7<A&-"'
64&A4' 45' 95W8&95B!' J ' ;5<A:<J=5' "5>-&<&-":' <"B' 4<'
&7' 45' < <AD5B' ">=<"B' &' R6-8=B' J5' &"' B57595"A5' -"=' '
-' 4&:' -=&"5::@:' 6&:45:
@' &:' -=&"5::!@:<&B' =&CR&95I!' @&:' ;59:8<B5B' 4<' -8'
&I!' #

LLL ?

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=4 " ."?

<95 -J=&>5B -A<== 4&:6-?<" -<AA-8" ! <"B 4<
-"= J B-&">:-A<" -8A-?5 -<"5"B 6& 4 -=$
=<"B <"B T5<=<"B 5 4&"D: 4< 45A-"W85: -7
">=<"B &:&"A-?;<9<J= 5<:&59 4<" 45A-"W85: -7
4-:5 9-C&"A5:! <"B 4< -8 ?8: 8"B59 <D5 & -
;9-5A -89 -6" A-=-"&5: <"B -89 -6" A-<: 5
:< : 4< &" 45 &?5 -7 &8: # 7-89 48"B95B 4-8$
:<"B B-==<9:6595 4-8>4 <:877&A&5" :8J:&B 79-?" 45
-= 55 5 A<""-8"B59: <"B 64 <:8?:-?8A4
=<9>59:4-8=B J5 B5?<"B5B"-6 5==4&?" 4< -89
B&77595"A5:6& 4 45 %855"" -7 ">=<"B ?< J5 5<:&=
95;<&95B &7 :45 6&==<::&: -8 &" 95A-C59&">" 45 9-$
C&"A5:! 64&A4 :45 &:" - 7<9 79-?! A-":5" &">" -B-"
4< &" 7<A :45 6-8=B "5C59 4<C5 :5 7-- &" 45
&:=<"B:5LA5; 6& 4 4< &" 5" &-"! 459 B5:&95 J5&">
4< 45 9-C&"A5: :4-8=B 95?<&" 8"B59 45 ;<"&:4
A9-6"! &" ;-::5::&-" -7 45&9 <"A&5" =&J59 &5: 4<C5
:<&B 4< &7 45 ;95:5" -AA<:&-" &: <==-65B -;<::!
<"B &7 -89 (<R5: ?<D5 ;5<A5 6& 4 45 %855"! 45
">=&:4 W85: &-" ?8: J5 A-":&B595B < <"5"B! <"B J5
4-8>4 -7 "-? -95 -89 (<R5: ! 95;5< 5B! 4<B
J55"" &"7=85"A5B -"= J 45 ;59:8<:&-":-7 4&: -=&$
"5::&"" <D&">" <"-459 6< -8 6-8=B 4<C5 -A-"$
&"85 45 6<9 &"" -==<"B! -? <&" <&"" <"" <9? &""
=<"B59:<:<A45AD -" 9<"A5! <"B -;9-C&B5<7=55
:9-">5"-8>4 -5"A-8" 59 <"B -C59A-?5 45 64-=5
:95"> 4 -7 ">=<"B <"B :<&B& 6-8=B J5<:?<==59
7<8= 645"" -B A<==5B 4&?" -<AA-8" ! &7 45 4<B :;5"
<=& =5 --? 8A4! 4<"" &7 45 ;59?& 5B 45 64-=5 5"$
59;9&:5 -7<== -45>9-8"B @

4595 95?<&"5B-"5 ?-95-J: <A=5 9<"A5 4<B <=6< :
:--B&"" 45 6< !<"B 9<"A5!"- 6& 4: <"B&">" 45=5<>85!
95?<&"5B&"" 45 :<?5 ;-:& &-" -=& &A:<45 -89 -7
<9&:6595:9-">59 4<"" 95=&>&-" 45 <9B&"<= -7 :5
<B?& 5B 79<"D= ! 4< <=4-8>4 45 95"A4 <4-=&A:

k 6-8=B A-59A5' -9@;&?&:4' 45&9' -E6"' 4595 &A:!' 45 ' A-8=B
"-' <"B' /6-8=B "-' <==-6' ;<&"' -' -C59A-?5' ">=<"B' $$$$$
7' ;<&"' 8"B59 --D' 45' 6-9D!' <' ;<"&:4' -77&A59' 6-8=B' 5J98H!
4<C5' -' =5<B' 45' 5L;5B& &-"' <"B' 45' 8D5' -7' 8&:5'
4<B' J5>>5B' 45' -;5' -' 9578:5' 4&:' :<"A &-"' -' 45' &"C<S
:&-"!' 8"=5::' 8&:5' 6<:' 4&?:5=7' <' ;<9 ' -' & ' <9B&"<=
<"I!' 64-' 95;95:5" 5B' 9<"A5' &"' 45' <;<=' -8"A&=!'
-;;-:5B' &' <= ->5 459' 45' 95A-??5"B5B' 45' -;5' -' B-'
-"5' 4&">' <' <' &?5!<"B' :8>>5: 5B' 4<' 45' :4-8=B' B&C59'
45' &"C<:&-"!' &7' &"C<:&-"' 4595' 6<:' -' J5!' 79-?' ">S
=<"B' -' 5"5C<' 45' -;5' 4&?:5=7' 6&:45B' &' -' >-'
7-96<9B!' J8' 6<:' E"-' 5<>59' -' :;5"B' ?-95' 8;-"' &'
4<"' "5A5::<9 ' ' 6<:' B-8J 78=' 645 459' 45' A-8=B'
J5' J9-8>4' -' B5A=<95' <><&":' 45' &">' -7' A-:' <"B'
:&P' ?-95!' 645 459' 45' 6-8=B' :<"A &-"' 45' :5 =5?5"'
-7' 45' A9-6"' -"' 4&=&;' 45' <?J& &-"!' 64&A4' 45' 4<B'
75=' -' B&: &">8&:4' 4&:' ;-" &7&A< 5!' 4<B' J55"' A--=5B' J'
45' B&: 95::' -7' ;<9 &">' 6& 4' 4&:' ?-"5 H' 4&=&;@:' ><?5'
<:' :8:;5A 5B' &7' "-' 78== ' 8"B59: --B' 45' 8&:5:'
595' "-' ?-95' 6&==&">' 4<"' 45' -8:5' -7' #<=-&:!' 4<'
45&9' -8">' D&":?<"' &"' A-=<"B' :4-8=B' J5' B5;9&C5B'
-7' 4&:' 9&>4 :!' <"B' 45' -;5' 6<:' <"' <=&<"' :-C595&>"' <:'
5=' <:' 45' < 459' -7' 49&: 5"B-?!' <"B' 4<B' "-' <"L&5'
-' :5' <' 789 459' &"A95<:5' -7' 45' <=95<B' -C59>9-6"'
;<"&:4' ;-659

45' 5L;5":5!' 45' 8"A59 <&" ' -7' 45' :8AA5::&-"!' <"B'
45' 48?-89' -7' 9<"A5!' 7-9?5B' 48:' <:59&-8:' -JR5A &-"'
-' ;9-A55B&">' 6& 4' 45' 6<9' 45' 5C&B5"' -JR5A' -7' 45

K @ =' >'83 -' W85' ?-: 9<J<' B5::5-' ?5' 4<"' 45A4-' 5"' "-?J95' B5' :8' <"S
B5' =&<A59' <=>8"<' A-:<' :5[<=<B<' :5' =5' &B<B!' '=-' W85' :8' <" &B<B' 95:;-"B&Z'
4<' 95:79&<B-' A-"' 5=' B-=-9' B5=' B&"59-@ Y' 5==-@_ =*.'' 1' 5J959-!' *M32'
D< 8!L' 9]'4+' ='66&' .1' 5J959-' "A=-:5B' &"' <'=5 59' -7' 45' :<?5' B< 5'
=44'4^('(3' 79-?' =&C<95I' -' 4&=&;' ' =44'
@ -' W85' :8' (<>KK' B&A5' A59A<' B5' =<:' 4!.'(3'
5L4-9 <A&-"5:' W85' B&C59:<:' C5A5:' :5

9LL&&&

*M32
5J98<9

#< &A<"' 6<:' -' =5<C5' 45' 6-9D' -' 4 &;' <"B' -' B5;9&C5' 4&?' -7' 45' ;9<A &A<=' 798& :' -7' & ' 4&=&;!' 45957-95!' & ' &:' 5<: ' -' :55!' 4<B' : 9-">' &"B8A5?5" :' -' A-":5" ' -' <' ;5<A5!' -"' 45' 59?:' 64&A4' 45' %855"' <; ;5<95B' 95<B ' -' A-"A5B5!' &=5' 6-8=B' 48:' J5' =57 ' -' B5: 9- ' < ' 4&:' =5&:895' 45' 95?"<" ' -7' 7955B-?' 64&A4' 6<:' =57 ' &"' -=S =<"B' <"B' T5<=<"B ' 45' 8>85"-:' A-8=B' J5' A98:45B' "5L ' &"' 9<"A5!' <"B' 45' :8J?&::&-"' -7' ">=<"B' -' 45' >5"59<=' 6&==' -7' 49&: 5"B-?' 6-8=B' 45"' -"= ' J5' <' ?< 59' -7' &?5

=&I<J5 4!' -"' 45' -459' 4<"B!' 5"&7&5B' < ' 5L;5":5' <=:-!' <"B' 6& 4' 9<& -9:' &"' 459' -8"A&=!' :<6' -9' 4-8>4 ' :45' :<6' 4< ' :45' A-8=B' :5A895' W8&5 ' -' 459:5=7' 7-9' 45' 95?<&"B59' -7' 459' -6"' 95&>"!!' 6& 4-8 ' 5L<A &">' :<A9&7&A5:' -7' 45' 9-C&"A5:' 64&A4' :45' A-8=B' 459:5=7' 95><9B' <:' &?S ;-9 <" ' 594<;:' :45' 4-8>4 ' 4< ' :8A4' <' :5 =5?5" ' <:' :45' A-" 5?;=< 5B' ?&>4 ' J5' <' ;95=8B5' -' 45' >5"59<=' A-?;9-?&:5' 64&A4' :45' 4<B' <=6< :' =-">5B' 7-9 ' 4-:5' 9-8"B' 459!' 64-' 8"B59: --B' J5 59' 45' B5; 4' <"B' ;-659' -7' 95=&>&-8:' ;<::&-"!' 7-95:<6' 4< ' 4-65C59' & ' ?&>4 ' 7<95' 6& 4' 459:5=7!' 45' : -9?' 6-8=B' :--"59' -9' =< 59' 7<==' -"' ">=<"B' ' 4< ' <' < 4-=&A' 95C-=8 &-"' ?8: ' <"B' 6-8=B' 5":85!' 6& 4' & :' J=--B ' <"B' 599&J=5' A-":5W85"A5: ' 8 ' =&I<J5 4' B&B' "- ' :55' & !' -9' 6<:' A<95=5::' &7' :4`' B&B ' 4&">:' 6-8=B' =<: ' 459' &?5' ' -9' &7' 45' : -&?' -C59 --D' 459' 64&=5' :45' 6<:' <=&C5!' -' < 5"B' ?<:' <><&"!' <:' :45' 4<B' B-"5' 8"B59' 459' :&: 59!' 6<:' "- 4&">:-' ;<9 &A8=<9= ' -JS R5A &-"<J=5' ' 45' ?<::' <"B' 45' ">=&:4' :59C&A5' 6595' 45' :<?5' 4&">!' 6& 4' J8 ' <' &E&7=&">' B&77595"A5' -7' 7-9?' :' & ' 6<:' 6& 4' 45' :8AA5::&-"' -' 45' A9-6"!' :-' & ' 6<:' 6& 4' 95=&>&-" ' ' 6<:' A-"C5"&5" ' -' 459:5=7' 4< ' 4595' :4-8=B' J5' "-' <AD"-6=5B>5B' :8AA5::-9 ' ' 6<:' A-"C5"&5" ' -' 459:5=7' -' J5' &"B&77595" ' -' 45' 9-5: <" ' A<8:5 ' 45' "5L ' >5"59< &-"' ?&>4 ' :-=C5' 45&9' -6"' ;9-J=5?:' &"' 45&9' -6"' 6<

48:' 45' :5A95' "5>- &< &-"' 65" ' -"' :6&? ?&">=
4<? ;<>" ' 95; -9 5B' - <9?<!' 64&=5' "B95<' B5' --5' $$$$$
A-??8"&A< 5B' 6& 4' =&I<J5 4' H 4< 5C59' 89>4=5 @:' A=98H'
&": 98A &-":' ?<' 4<C5' J55"!' J- 4' :45' <"B' 5' --5' ><C5'
<9?<' -' 8"B59: <"B' 4<' 95=&>&-"' 6<:' "-' -' J5' <'
B&77&A8= ' 45' A-"B& &-":' - 4596&:5' 6595' 5<:&=' <>955B'
8; -"' <"B' 4595'95?<&"5B' -"=' :-?5'B&;=-?< &A'A-W85 9'
<:' -' 64&A4' -7' 45' 6-' -659:' :4-8=B' ?<D5' 45' 7&9:'
-;5"' <BC<"A5 H' <"79<"A4&' 8"B59 --D' 7-9' 45' 9&"A5!
@' 4<' :-' 7<9' 7-9 4' <:' 459' (<R5:' 6-8=B' "-' &" 59$
@' ?5BB=5' &"' ?< 59:' -7' 95=&>&-"!' :45' :4-8=B' 4<C5'<==-459'
@' 4&">:' -' A-" 5"' 459' <?-">:' -459:!' 459' ?-"5'
@' :4-8=B' J5' 95;<&B' 459' 64&A4' :45' 4<B' =5" !' <"B' J5$
@' :-65B' &"' 45' -6' -8" 9&5:@' @' ' 6<:' A-"7&B5" =' '
@' <": 6595B' 4<' 459' (<R5:' 6<:' A-" 5"' "-' -' ?5BB=5'
@' -9' B5<=' &"' <" ' ?< 59:' -7' 95=&>&-"@' @' 45' %855"'
@' =--D5B' -"=' 4<' 45' 9&"A5' -7' <9?<' :4-8=B' 7&9:' :55D'
@' 45' ;5<A5!' 7-9' 4<' :45' 459:5=7' 6-8=B' "-' 7&9:' J5>&" @H
8AA5::!' 4- C5C59!' &"' =&I<J5 4@:' -;&"&-"!' B5;5"B5B' -"'
D55;&">' 5&A5: 59' ;<&K<= :5B' 5&A5: 59' 4&?:5=7!' <"B'
<=:&">4<?!' 64-!' "- 6& 4: <"B&">' 45' A<95' 6& 4' 6=&&A4'
45' :5A95' 6<:' D5;' 79-?' 45?!' A-"R5A 895B' 64<' 6<:'
>-&">' -"!' A-"A5&C5B' 4<' 5C5"' &7' ;5<A5' <"B' A-?;9-?&:5'
6595' -' J5' 45' 8= &?< 5' -JR5A :!' <"' 5775A &C5' A<?;<&>"'
6-8=B' J5' 45' 7& 5:' ;95=8B5' -' 45' 95< ' 45' %855"!'
-"' 45' - 459' 4<"B!' : &=='<775A 5B' -' ?<&" <&"' 4< E&"' :5"BS
&">' 9--;:' -' 45' 5 459=<"B:' :45' 4<B' ?5<" ' "-' 4-: &=& '
-' ;<&"' 45' 4<B' <AA5; 5B' "-' <8 4-9& ' 5LA5;' &"' 45'
A<8 &-"<9' -6":' :' A<9578== ' :45' 4<B' 95:59C5B' 45'
A-" 9-=' -7' 459' <9? ' &"' 459' -$CH"' 4<"B:!' -' ;95C5" ' 45'
<5:' 79-?' 8:&">' 45?' 8;-"' <A &C5' :59C&A5" 64&=5' :45'
4<B' 9578:5B' -' <==-6' 459' 95;95:5" < &C5' -' <D5' <" ' -77&A5

K "B95<' B5' --5' -' 89>4=5 !' 95< &">' -7' ;5<A5' 8"B594<"B' -' ? '
R(<9A4' *F$.F _ =44' 8'() -9B' -7' 5&A5: 59!' *M32 _ =44' *8&'
1 5A=<9< &-"' -7' 45' ?<""59' -7 8'()

64&A4! 6-8=B 5"AL-<A4 7-9?<== 8;-" 4&=&;@: R89&:B&AK &-"

45 :5":<&-" ?< J5&?<>&"5B! 45957-95! 6& 4 64&A4 :45 =5<9"5B 4< 5&A5:59_ 5&A5:59! 64-? :45 6<: ;=5<:5B -:<:=&5 4<B 9<&:5B -8 -7 45 B8:! 45 :=<C5 -7 459 ;=5<:895! 45 <8-?<-" 4< 6<: -? -C5 -"= < 459 6&==! 4<B B<95B -J95<D 45 ;-:&&C5 A-??<"B 64&A4 :45 4<B=<&B 8;-" 4&?! 4<B<AA5; 5B&" 45 %855"@: "<?5 45 <J:-=8 5 >-C59"?5" -7 45 9-C&"A5:! 4<B <D5" <" -< 4 -45 <5:! 64&A4 :45 4<B B&:&"A = 7-9J&BB5" 4&?" -<D5! <"B 4<B ;8 <" 5"B -45 <"<9S A4 64&A4 :45 4<B ?5<" -A-" &"85 =&5 4<B B-"5! &" :;& 5 -7 459! 64< :45 -8>4 459:5=7 -4<C5 J55" 45 7&9: -B5:&95 5 4<B >-"5 -C59! &5B 4<"B <"B 7--J -9B59: 64&A4 ?<B5 4&?" 8:5=5::<"B 45=;=5::! -4-=B <: <9C&">"<9? &"&"<A &C& ! 6& 4-8 ?-"5 -;< 45?! &" <A-8" 9 6& 4-8 <>-C59"?5" ! 7&5 6<: :899-8"B5B J 9<&-9: =8" -9B (-8" R- @: J9-459! --=5 ! < B5;5"B5" -8 6<9B= -7 45 &B"5 :! <"B ?<" -459:! :5A95 <>5" :-7 45 %855" -7 A-:! 4<B J55" :5" -C59 ;89;-:5= -6< A4<"B 46<9 4&? 4-8>4 ;9-75::&"> :8A4 A<95 -7 45 =&C5: -7 459 :8JR5A :! 4< :45 7-9J<B5 -99&: -5L;-:5 45?' &" <A&-"! :45 4<B <==-65B 45?' -;59&:4 &" :W8<B: @ 45 4<C-AD!@ 69; 5 -9B -9 4! @ 64&A4 4<: J55" ?<B5 -7 45 :-=B&59: 7&9: :5" - 59 &:' @=<?5" <J=5! 64&A4 ?8: J5 :8;;=&5B <"B 5"=<9>5B ;95$ @ :5" = J57-95 ? -9B A<" B-<" 4&"> @H @ (-: ;<9 @ -7 45 J<"B: 4< A<?5 -C59 &" 8>8: <"B 5; 5?J59!@ :<&B <A-995:;-"B5" -7 <=:&">4<?@:! Q<95 ?-95 4<" @ 4<=7 6<: 5B! B5<B! <"B >-"5! <"B ?<" 4< 95?<&" <95 @ :&AD! =<?5! <"B :4956B= 5"755J=5B 7-89-6 ": -=B&59: @ ?<" J5 ;<&B 6& 4 5<9 4 &" 45&9 >9<C5:! 45 95: :-@ B&:A-" 5" 5B 4< ! &7 ;< A-?5 "- :;55B&= J57-95! 45

Q ?<' J5' B9<HC"' -' B5<=' 6& 4' 45' 5"5? ' ' B-8J ':-?5'
Q &==' <BC5" 895 @H

-!' ;9-J<J=!'6& 4-8' 45':5A95'<BC&A5'-7' 89>4=5!' -9'<' =5<:' -7' <=:&">4<?!' 5&A5:59' 4<B' ?<B5'<' J-=B' 577-9' -' J89:' 45' "5'&"' 64&A4' 45' 6<:' 5" <">=5B' 45' <5:' 7-9' 45' ;<:' 5<9' 4<B' ;-::5::5B' "-' -9><"&:5B'>-S C59"?5"' <' <==' &"A5' 45' ?89B59' -7' 45' 9&"A5' -7' 9<">5' 45' 4<B' 6<& 5B' 8;-"' =&I<J5 4@:' ;=5<:895' 7' 45' B&B' "-' D"-6' 64<' :45' 6<:' B-&">' 45' A-8=B' 5<:&=' AJ"R5A 895' 64<' :45' 6<:' =&D5=' -' B-' 45' 4<B' J55"' :-' A<9578=' -' <C-&B' A-??& &">' 459:5=7!' 4<' 45' 6595' 45' ?-95' <"L&-8:' -' A-??&' 459' &"' :;& 5' -7' 459:5=7!' <"B' 45' 4<B' "-' ;<9 5B' 6& 4' 45&9' 4-;5:' -7' J5&">' &"A-9;-9< 5B' &"' 45' ">=&:4' ?;&95' 45' ;-;8=<A5':<6!' &"' 45' <BC5"' <?-">' =&5?' -7' <' >95<' ">=&:4' "-J=5?<"!' <':5;' -6<9B:' <' 95<=&:<&-"' -7' 45' 8"&-"' 5' 6<:' 95A5&C5B' 6& 4' 45' 6&=B5:' 5" 48:&<:?' @ -B' :<C5' 45' %855"' @ 4<B' 98">' 49-8>4' 5=7' : 955 :!' =-8B' <:' 5C59' &' 4<B' J55"' 45<9B' &"' 45<;:&B5

45' :<5:' 95;95:5" 5B' -' 5&A5:59' 4<' <' >-C59"S ?5"' -7' :-?5' D&"B' 6<:' ;95::&">=' "5A5::<9' 45' 9-S C&"A5:' 6595' &"' A-"78:&-"' ' ?-"5'A-8=B' "-' J5' 4<B' 79-?' ">=<"B' -' ;<' 45' 9--;:!' 64&A4' &"' 45"K' &?;<&5"A5' <"B' 48">59' 6595' -7 5"' -"' 45' 5B>5' -7' &":8995A &-"' 45' B&:;5":<&-"' -7' 45' <5:' 95C5"85:' 6-8=B' ;95C5"!' <' <" ' 9<5!' <"<9A4' <"B' B&:<:59!' <"B' 45' <AA-8" :' A-8=B' J5':5 =5B' <7 596<9B:' '48"B95B' -JC&-8:' 95<:-":' A-8=B' J5'>&C5"' 7-9' <' 4&">' :-' "5A5::<9' <:' 8"&-"' -7' <8 4-9&' 45' >-C59"?5"' 6<:' -77595B' -' 5&A5:59!' 64-' 69-5' -' ">=<"B' 7-9' =5<C5' -' 95A5&C5' &!' <"B' 45' 6<:' &": <==5B' <"B' &"' ;-::5::&-"' J57-95' 45' &"5C& <J=5' ;9-4&J& &-"' A-8=B' <99&C5' 45' 95W85:' & :5=7!' 645"' &' <99&C5B!' ;9-C-D5B' ?-95' 4<"' :877&A&5"' '&"B&>"<&-"' 4<' 45' <5:' :4-8=B

=

*M32
5J"8&9

4<C5 5C5" ;9-;-:5B :8A4 < 4&">! <"B 4< 5&A5: 59 :4-8=B " - 4<C5 &": <" = 9578:5B & ! 6<: -7 & :5=7 <" 8";<9B-"<J=5 A9&?5 K 45 <A & :5=7 45 %855" =5<9" 79-?- 459: J57-95 45 <9= 4&?:5=7&"7-9?5B 459 -7&

5A95 <9 <C&:-"! 64-?' 45 7-8"B < 45 <>85! <"B J 64-:5 A-8":5=: 45 6<: 5"A-89<>5B -' <A <: 45 B&B! 8"B59 --D -' J5 45 J5<959 -7 45 "56:! <"B -' B575"B 64< 4<B J55" B-"5 <C&:-" 6<: B5 <&"5B J 7-8= 65< 459! <"B 45 "56: 95<A45B ">=<"B J57-95 4&? 45 %855" 6<:&" 78== A9 <7 59 ;5<A5! 6& 4 45 ><?5&" C&56! <"B <=?-: ! <: :45 4-8>4 ! :5A895B! 645" 5&A5: 59! -7 <== ;5-;=5&" 45 6-9=B! : <9 5B -8 -7 45 >9-8"B 8;-" 459 ;< 4 -' :5"B 9--;: 6& 4! < 4<=7$ B57&"5B &" 5" &-" -7 8:&"> 45?'&" 45 5"5? @: :59C&A5 ?&>4 J5 B575"B5B -9 5LA8:5B J8 7-9 45&9 A-??<"B59 -' <AA5;<8 4-9& -C59 45 <"> -7 ;<&"@: 599& -9&5: < 45 4<"B: -7 4&: 95J5==&-8: :8JR5A :! 6<: <" <A -7 4-: &=& "- -' J5 5L;=<&"5B <6< 45 ;5<A5 6-8=B J5 =5: 5<: ! <: <"79<"A4& 5L;95::5B& ' 45 &"> -7 ;<&"7-8"B 4&?:5=7<::<8= 5B&" 5<9"5: @ 45 ?< 59 4<B ;9-A55B5B J5 -"B 6-9B:! <"B ;9&"A5: <":6595B B55B: 6& 4 B55B: @H

&9 4-?<: 5"5<>5 6<: -9B595B -' >-' &": <" = -' -==<"B! -' :< 4< 45 <9=<"B 45 < 5: 4<B 95< 5B 45 %855" 6& 4 A-" 5?; '@ 5& 459 45 6-9=B 6-8=B 9578:5 -' J5=&5C5 4< <A95< 895 -7 459 -6" 6-8=B 4<C5 ;95:8?5B -' <AA5; 45 >-C59"?5" A-" 9<9 -' 459 A-??<"B! 6& 4-8 459:5A95 <::5" !@ -9& 6-8=B J5 4-8>4 4< :45 A-8=B "- 98=5 459 -6" :8JR5A : 45 5=5A &-"! :45 :<&B! ?8: J5 A<"A5==5B 6& 4 4>! :<?5 :-R5?"& &5: 6& 4 64&A4 & 4<B J55" ;8J=&:45B @ 45

&8;

*M32
AJ98<9C

Q <9=!' <=-' 5LA8:5:' =<&B' <:&B5!' ?8:' 95:&>"' 4&:' <8 4-9& '
Q&"' 45' ;=<A5' 64595' 45' <AA5; 5B' & @H
<=:&">4<?' B<95B' -' :8>>5:' 4<' &' 6-8=B' J5' ;98S
B5"' -' <:A59 <&"' 7&9:' 45' 57=75A' 64&A4' :8A4' <"' -9B59'
?&>4' ;9-B8A5' &"' 45' < 5:' 89>4=5' :<&B' 4<' 7-9' 4&:'
C" ;<9' 45' 4-8>4' 5&A5: 59' 4<B' <A 5B' 4-"-89<J=' <"B'
95==' Q 8' 45' %855"' 6-8=B' "-' 5"B895' -' 45<9' :;55A4'
Q&"' B575"A5' -7' 4&? @H 59' ;<::&-"' <><&":' 45' 7<C-89S
& 5' ?&>4' 4<C5' J55"' ;<==&< 5B' &7' &"' 45' ?&B:' -7' &' :45'
A-8=B' 4<C5' 95?5?J595B' 459' -6"' B8 ' 45' 9--;:' 5"S
=&: 5B' &"' 459' "<?5!' 64&A4' :45' 4<B' J-8"B' 459:5=7' -' ;< !'
?5"' 6& 4' ">=<"B@:' 4-"-89' &"' 45&9' A4<9>5!' 6595' B &">'
=&D5' :455;' C& 4' 45' 9- !' 45&9' A95B&' :;5" !' <"B' 6& 4-8'
?5<":' -' J8' 7--B' -9' A=- 45:' 45&9' 6<>5:!' ;--9'
HC95 A45:!' 4<B' J55"' Q5<9 4' &"' 45&9' >9<C5:!@ <"B' :45' A-8=B'
"-' J5' J9-8>4' -' A<:' <' 4-8>4' 8;-"' 45?' 7' 45'
:5C5"' 4-8:<"B' :5"' -C59' &"' 8>8:' <"B' 5; 5?J59!'
?-95' 4<"' 4<=7' 4<B' ;59&:45B!' <"B' 64&=5' 45' 5?;59' 6<:'
&&;-& & 459' "-' <' ;5"" 'A-8=B' J5' 698">' 79-?' J5 655"' 459'
A=5"A45B' 7&">59: O

57-95' 5"5<>5' A-8=B' :5' -8' <C&:-"' <99&C5B' 45'
%855"' :5" '7-9' 4&?' <"B' 95A5&C5B' 4&?' 6& 4' <' 4<&=:-&@?'
-7' &"C5A &C5:' 45"' :45' ;<8:5B' -' <D5' J95< 4!' 45' -=B'
459' 95:--=8 5=' 4<' 45' < 5:' A-8=B' "-' 95?<&"' 8">-S
C59"5B' 4<' "-' -459' >-C59"?5" 'J8' 5&A5: 59@:' 6<:'
;-::&J=5' <"B' 4<!' Q7-9' 4&:' -6"' ;<9!' 45' 6-8=B' 4<C5'
Q J55"' ?<B' -' 4<C5' B&::8<B5B' <"' <A &-"' :-' "5A5::<9' -

K ": 98A &-":' -' ' !' -' J5' :5" ' -' -=<"B!' 5J' *+$.+ _ = 44' *8I 8'()

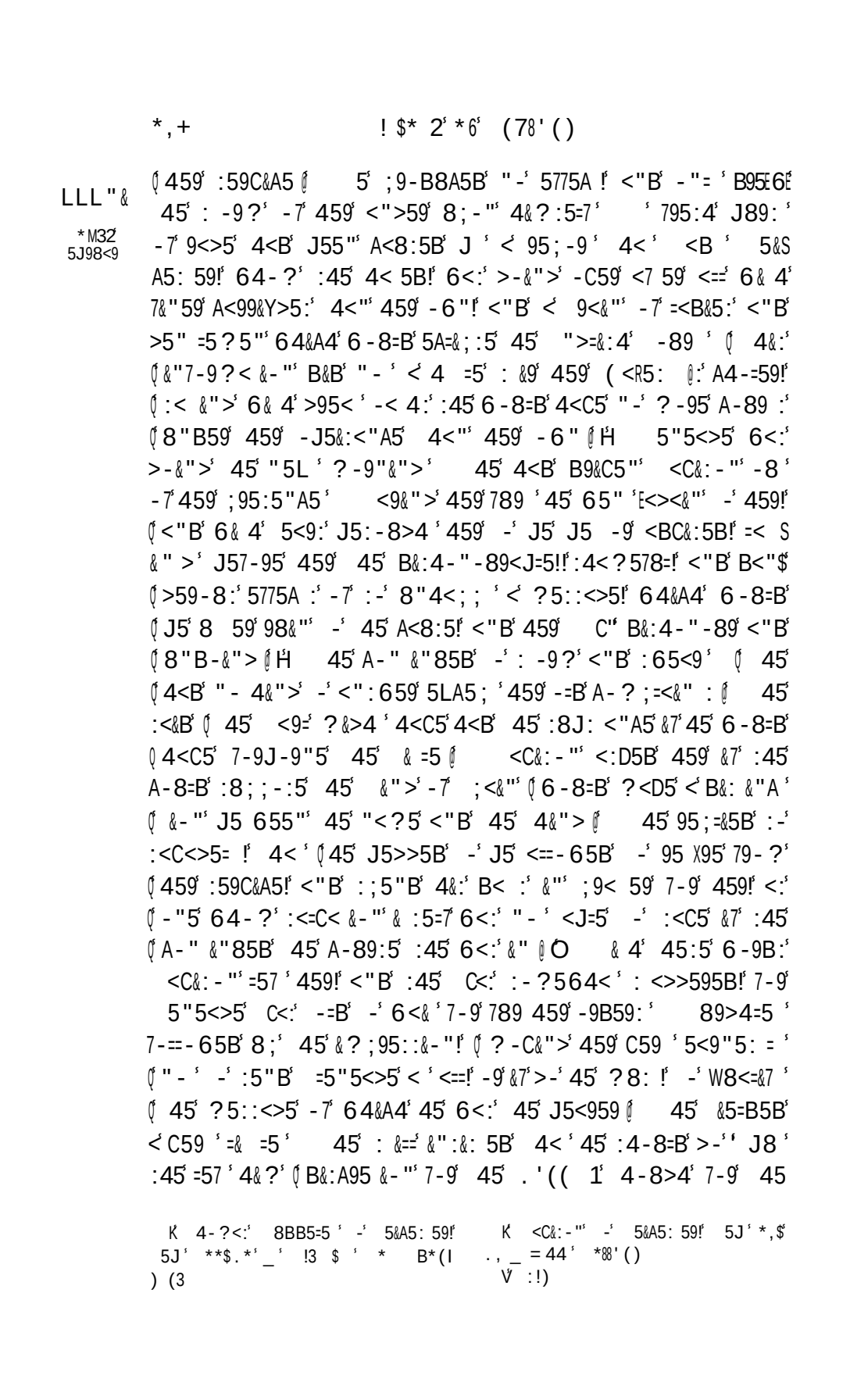
K 89>4=5' -' 5&A5: 59!' 5J' ,$' !D < = 44' :!)

O' 4595' A<?5' "-';5"" '-7' 95<S :895' 5C59' :&"A5' ?' A-?&">' 4& 459' 4<' "'4&A4' A<?5' 6<:' B85' J57-95' &

A-?5' 45' :-=B&59:' A<""-' >5' <' ;5"" ' 45&9' A95B&' &:' :;5" ' 45' ;59&:4' 7-9' 6<" ' -7' C&A 8<=' <"B' A=- 4S &">' &"' >95<' "8?J59:' 45' 64-=5' <"B' :-?5' <95' 95<B' -' ?8&" (< !3) $' $*' + 66= 2' (<9A4' *M$.M' = 44' *88'()

LLL"&

*M32 5J98<9



. '$$ "-"5 45 6-8=B 4<C5 0459 -775"A5 B5A=<95B
45 A-" &"85B -: &>?< &:5 5&A5: 59 <: -"5 -7 459 -6" *M32
9<&:&"> 45 A-":5" 5B -:;<95 4&?45 B&:>9<A5 -7 <
5J"&79
;8J=&A B5;-:& &-"" J8 :45 95W8&95B 45 <5: -B5C&:5
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4<0&"95:;5A -7 ?&:A4&57 79-?<A4<">5!0 5&A5: 59
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6<9B: 4< 45 ?&>4 95 <&" 45 ;-659 &7 45 --D "-
-459 &=5 4<"! &58 5"<" $ 5"59<=7-9 ">=<"B 8
&" 45 =-">$98" :45 :--B J 459 ;-&" ! <"B 5"5<>5
<: B&:;<A45B 0 -B-!0 &" 45 =<">8<>5 -7 &9 4&=&;
&B"5 ! 0<: ?8A4 489 6& 4 4-"5: <: <" ?<" 7-9
0 65=C5 ?-" 4: 4<B B-"5 6& 4 "<8>4 &"5::@H
45 5 --5<"B <"79<"A4&" "5>-&< &-" ?5<"64&=5
<: "-=-">59 45 5" &95 :5A95 64&A4 =&I<J5 4 B5:&95B
-D55;& 45 =d"A5 -7 <9?<! 4-8>4 45 4<B "-
J5 9< 5B 45 ;95A&:5 "<895 -7 45 -C59 895: 4< 4<B
J55" ?<B5 -4&?! 4<B 4&" 5B -45 <5: 4< 45
6595 &" B<">59 -7 B5:59 &-"! -5?; 45?-" 45&9
:&B5 -?<D5 45&9 :5;<9< 5 ;5<A5 <"B 45 -=<"B59:!
4-8>4 45 A-8=B "-J5=&5C5 4< 45 6595 95<= J5S
9< 5B! 6595 "- -J5 :<75= 9&7=5B C&4 7 45 -"A5
:<6A=5<9>9-8"B7-9:8:;&A&-"! 45A4<"A5: 6595 4< 45
6-8=B A-?5 -59?:&" 9<>5 <"B B5:;<&9! <"B 7&"B <7 59S
6<9B: <?5=<"A4-= ;=5<:895 &" 45=;&"> 4&=&; -69&">
45 =<: ;5"" -7 :<&:7<A &-" -8 -7 45 6-?<" 64-
6-8=B 45" J5 < 45&9?59A 5&A5: 59! 4-8>4 >-C59S
"-9&" "<?5! 4<B "- B<95B -8:5 4&: <8 4-9& &=="4&:
?&: 95::4<B :<"A &-"5B & 95A&-8: &?5 6<: <=-65B
-;<:: ;<"&:4 9A&"7-9A5?5" :6595;-89&">&"! 64&=5
45 ">=&:4 6595 6<: &">&" ><99&:-"! < J89B5" -" 45

K &9 4&=&; &B"5 -89>4=5 ! (<9A4 *3$.H _ =44 *8'()

LLL"&

*M32
(<9A4

A& &5: &" k 64&A4 45 6595 W8<9 595B ?&"-8: ?8 59$
&">: 6595 45<9B <?-"> 45 :8=D 8 A4?5" -7 =8:4S
&">! 64- 8"B59 <" A&9A8?: <"A5: &== =&D5B 45 ;&@5:5"A5
-7 : 9<">5 :-=B&59: <?-"> 45? @ J5:55A4 -89 -9B$
@ :4&;!@ 69- 5 &9 4&=&; &B"5 - 45 -9B 95<:8959!
@ >&C5 -89 4<"B - :5"B&"> -C59 45 ?-"5 :! -9 4595
@ C&= :-?5 599&J=5 <AA&B5" 7-==-6 - 45 A<8 &-"
@ -6": @H

5"5<>5 6<: < >--B :8JR5A Q =--:5 <"B B&:S
-9B595B 5: < 5 "55B5B "- :4<D&">!@ 45 :<&B <"B <"
@ 8"A59 <&" <"B ?&: 98: 78= ;5-;=5 95W8&95B - J5 45
@ ?-95 <::895B@ 5&A5: 59! &7 45 6<: <==-65B - A-"S
&"85 &" 4&: ;-:&&-"! ?&>4 D55; @ 45 - 59&"> A-89:5
@ 8;-" 45 6455=:@H <"B 4<B 5"5<>5 B<95B 45 C-8=B
>=<B= 4<C5 D5; 4&: ?5::<>5 - 4&?:5=7 8 =&I<S
J5 4@: &== 48?-89 4<B 9< 459 95 89"5B &" &: 7-9A5 4<"
J55" &" <" 6< <;;5<:5B -9B <96&AD 69- 5 79-?
45 -89 - 4&: J9- 459! 4< :45 C<: <J-8 - ?<D5
">=<"B 45 :=<C5 -7 ;<&" <"B =5<C5 95=&>&-" - J5
A98:45B@ <><&": 4&?:5=7 459 ?<=&55 6<: >95< ! <"B 8"S
W85"A4<J=5! <"B 45 <BC&:5B 5&A5: 59 &7 45 6<: 95A<==5B
9< 459 ->- - 45 5"B-7 49&: 5"B-? 4<"95 89"4-?5 O

H &B"5 - 89>4=5 ! (&&9A *3$
.3 _ 7 & *&8'( )
O 5"5<>5 - 89>=&=5 ! ;9&= 3$
8! < =44 :!)
K @ 59 (<R5: ?< &7 :45 $6&=!
J9&B=5 45 9<>5 -7 <== 459 5"5?&5:!
<"B :45 6&== "- <AA5; -7 & 4&:
"-J=5 A-8" 9 -7 -89: - J5 98&"< 5B
7-9 5C59! 5< <"B - J5A-?5 :=<C5: -
45 C&=5: :=<C5: &" 45 6-9=B! <"B
4< 64&A4 ;<::5 4 <== 45 95: ! 45
985 95=&>&-" -7 5:8: 49&: - J5
<D5" 79-? 8:e 89 ?&: 95::@: 5LS
95?5 9<>5 B- 4 &"A95<:5 9< 459 4<"
<" 6< B&?&"&:4! <"B :45 >&C5: -8
>95< 495< 5"&">6-9B: <><&": -89S
:5=7 (<D5 45 J5: <:&89<"A5 -8
A<" 7-9 -89:5=7 98: "- 459 -< 4!
7-9 4< 459 ?<=&A5 &: >95< <"B 8"S
W85"A4<J=5 5;-:5 -89 98: &"
-B! <"B =5 4&: J5 < A-?7-9 -
-8! 4< -8 6595 "5C59 :-4-"-895B
&" -89 =&75 <?-"> <== >--B ;5-;=5
<: -8 <95 4&: B< <C5 A<95 7-9
-89 :<75 ! <"B &7 :45 6&== "55B:
95C-D5 -8! - 45 -C59 49-6&"> -7
45 A<8:5! &7 6595 -8! &7 A-8=B
"- 45 <::895B 4595! 6-8=B >- - 45
789 45: ;<9 -7 49&: 5"B-? 9< 459
4<" 5C59 A-?5 &" - ">=<"B <><&"
BC&:5 ?5 64< - B-!7-9 ?5<" -
<D5 :8A4 ;<9 <: -8 B-@_ ' !.3
$* !3 $ (<9A4 2$*2 !3 $
* B*( ) (3

45' %855"@:' &": 98A &-":' -' 5"5<>5' /6595' ; -:& &C5'
4-8>4' A4<9<A 59&: &A<== !' 645"' 45' ?&:A4&57' 95:8= 5B'
79-?'&' 64&A4' 5C59 '-"5'7-95:<6' J8 '459:5=7!' :45'J=<?5B'
4&?'7-9' -J5 &">' 45?j' &5' 6<& 5B!' 4-65C59!' <:' =-">'
<:' 45' B<95B' 5&A5: 59' 4<B' :5" '-C59' &9' 4-?<:' 459$'
=5 ' 6& 4' 795:4' 5L;=<"< &-":' ' 6<:' ;-::&J=5' 4<' :42'
?&>4 ' 4<C5'95A-":&B595B' 459'95:-=8 &-"' 8 ' =&I<J5 4'
<:' "5C59' A-": <" ' 5LA5;' &"' ;59C59:& ' 459=5 ' 6<:'
D5;' 6<& &">' 7-9' <' 655D' J57-95' :45' 6-8=B' :55' 4&?'
45"' 45' 6<:' <B?& 5B' <' =<: !' 45' 7-8"B' -"=' ?J& 59'
?6-9B:'@<"B' 495<:' -'95C-D5' 5&A5: 59' <= ->5 459
"' ?< 59:' -7' &?;-9 <"A5' ">=&:4' -77&A59:' :;-D5'
45&9' ?&"B:' 7955=!' 5C5"' -' 45&9' -C595&>"' 459=5 '
:<&B!' =&D5' <C&:-"' J57-95' 4&?!' 4<' 45' <AA5;<"A5' -7'
45' >-C59"?5"' 6<:' <"' 8"?&L5B' >--B!' <"B' 4<' <7 59'
45' 5L;5B& &-"' -7' &9' 9<"A&:' 9<D5' &' 6<:' &B=5' -' J5'
<79<&B' -7'>&C&">' -775"A5' -' ;<&"
?' A<"' <":659' 7-9' &9' 9<"A&:' 9<D5!@ 45' %855"'
<&B'&?;<&5" = ' ?-95-C59!'&7' "55B' J5!' 45'>5" =5?<"'
A<95:' "-' &7' B&:<C-6' 4&? @
&:<C-6' ? ' -9B!' 45"' (<B<?!@:<&B' 459=5 !' <"B'
D55;' -89' 7<C-89' -6<9B:' 4&?' " "-'>-C59"?5"' &:'
E "-6' ;-::&J=5'&"' 45' <5:'&7' -8'95C-D5' ? ' -9B!'<"B'
4<9?'6&==' A-?5'-7'& @
45':65;' -8' -7' 45'9--?'&"' <'9<>5' -' J5';=<&"'
E &4' -8!@ 459=5 '69-5!' ' 75<9' :45' >9-C:' 65<9 ' -7'
45' A4<9>5' <"B' 6&==' 4<9B= $' J5' J9-8>4' -' B5<='
4-9-8>4=@H
=5"5<>5' 8;-"' 4&:' B5=&C595B' 45' ?< 59'6& 4'64&A4'
=&5' 6<:' A4<9>5B' "'<';8JR&A'<8B&5"A5'<"B'&"' 5&A5: 59@:

K @ <8=' &:' "-6' 7-8"B' 6& 4' ?5' ('7' $*' +7 8 2' ;9&=' 3$*3'
4<' ' B&B' "-':<' -';9-A55B'&7' 45' =44' *88'()
;8J=&A'A<8:5'?&>4' <D5'489' *' 4<B' K 459=5' -' 5&A5: 59!' (<9A4'*1$'
k <99<"'7-9' 45' ?<""59!' J8'7-9' 45' 11< !3 $' . B*() (3
?< 59' "-"5!'7-9' B-"5'&' ?8:'J5@_

;95:5"A5! $45 95<B <=5 59 79-? 45 %855" -' 45 < 5:! &" 64&A4 :45 95;9-<A45B 45?' 6& 4 4<C&">' 95< 5B 459 6E& 4 A-" 5?; ' 45 B&B " -' &"B55B " -6' &" :=H -" <" &? ?5B&< 5'<"B7-9?<=B5>9<B< &-"! J8 ':4 '95W8&95B 45?' -' =-:5 " -' < ?-?5" ' &" 7&"B&">' ?5<":' -' 95=&5C5 45 <9=-7'<" <8 4-9& ' 64&A4 :45 6-8=B " -' ;59?&' 4&?' E 4-=B ' 7' 45 '9578:5B 45 6-8=B J5'&? ?5B&< 5= '95A<==5B 45 -9&>&"<= ?&:>&C&">:! 45 4&" :'-7' <9?<!!'<"B 45 :A< 59&">' B9-;:'-7' 98?-89! 95A5&C5B < ' -"A5 < 75<978= A-"7&9?< &-" ' 45 "5>=5A ' -7' 45 9--;:! 45 B5<B &"$E 59 "5::' -' 64&A4 :45 4<B A-"B5?"5B 45 <9? ! A-8;=5B 6& 4 45 5<>59"5::' 64&A4 :45 4<B :456" -' >5 ';-::5:S :&-" -7' 45 A<8 &-"<9 ' -6":! 6<:' J8 ' --' &" 5==&>&J=5 &7' 45 %855" ?5B& < 5B 95<A459 7'<"B 6<:' 5L;=&A<J=5 &" "-' - 459 6< ' 45 9<& -9:' < ' 45 ">=&:4 -89 ' A-8=B " -' D55;' 45&9 A-8":5=' 45 ' :5" ' 6-9B -' 45&&" 79&5"B:' &" -==<"B 4< ' Q 45 4&">' 45 E4-;5B 7-9 Q 6<:' A-?5 -' ;<::!Q 4< ' 5&A5: 59 6<:' &" B&:>9<A5! <"B 4< ' ;5<A5 6<:' A-?&">' Q -B 7-9J&B &' :4-8=B Q J5 :-!Q 69- 5 5&A5: 59" Q&7'&' J5 985! 459 (<R5: ! Q 459 95<=?!' <"B 65! <95 <==' 8"B-"5!' <"B --' =< 5 65 Q :4<==' 7&"B 45 95?5B @H K &==' 45 ">=&:4 95<:89 ' A-" &"85B A=-:5B ' 45 :-=B&59:' : &==' A89:5B' <"B B&5B ' 9>8?5" ' <"B 5" 95< ' 6595 ;-659=5:' <=&D5 -' ?-C5 45 %855" ' <"B 89>4=H' <' =<: ' -=B 459 4< ' 45 ?8: '95:&>" 4&:' -77&A5! 95 &95&" -' ;9&C<A ! <"B 6<:4 4&:' 4<"B:' -7' 45 :4<?5 <"B B&:>9<A5 64&A4 45 :<6'&"5C& <J= 'A-?&"> H 45 6<:' ?-C5B <

H 5&A5: 59 ¸ -' 89>=&=5 ! (<9A4 *, 1,

O " 45 ;95:5"A5 -7 (9 H 5A95$ <9 ' '8:5B :-?5 J-=B"5::' 6& 4 459 (<R5: ! <"B ;9-5: 5B -' 459 <:' <' A-8"A&=-9 4< ' 7-9 B&:A=&<9>5 -7 ? A-":A&5"A5 <"B ? ' -< 4 'A-8=B " -' 7-9J5<9 -' =5 ' 459 D"-6 4< ' 4&:' A-89:5 4< ' :45 45=B <><&": ' -89 -9B:4&;' 6<:' =&D5 -' 5"B<">59 459 &" 4-"-89! :895 ! <"B ;9-7&! <"B 4< ' &7' :45 A-" &"85B 45 :<?5!

45' ?-&<5" !' <:' :45' 4<B' J55"' 645"' <C&:-"' 8:5B' LLL&"
:&?&=<9' 6-9B:' -' 45&K' 8' 45' "5L' B< !' Q:5B8A5B' J' *M32
Q:-?H<BC59:>'A-8":5=!@:45'95=<;:5B'&" -'-J:&"<A !'<"B' ;&=
&" -' <' 48?-89' 64&A4' 89>4=5' B5:A9&J5B' <:' Q C59'
Q<J:89B' <"B' ;59&=-8:@E Q*' >< 459' J' 459' (<R5: !@
9-5' <' (99E <C<:-89' -' 5&A5:59!' Q 4<'<"'&"B&77595"'
Q;5<A5' 6&=-' "-' J5'9578:5B!'64595-7' -8' <LK5-"='8:5B'<:'
Q<"'&":98?5"'"7-9!' <=D&">' 6&4' 459' (<R5:'-7' 45'
Q"5A5::&'-';8'?5"'&"-' 45'7&5=B!'-'64&A4'7-8"B'459'
Q5<9:'<=->5 459':-;;5B!'5:;5A&<=='J=<?&">' 45'A4<&E>5:!
Q "B' 64<!'W8-4':45!'&7'<';5<A5':4-8=B'A-?5'&"' 45'
Q?5<"&?5'i'@H Q 5'<95':-'>955B'-7'<';5<A5!@:<&B'
<=:&">4<?!'Q<:'&"' 45';9-A89&">' 4595-7' 65'"5& 459'
Q65&>4'4-"-89'"-9':!75 @O

45'B<">59' 6<:':-'C59'>95<'&7' 45' <5:'B&:A-C595B'
7-9' 45?:5=C5:' 4<'<' 95<'7-9';5<A5'6<:'95<=='&"';9-S
>95::!' 4<' <=:&">4<?'-J<&"5B';59?&::&-"' -'=5'45"H
D"-6'&!'<::89&">' 45?'<' 45':<?5'&?5'4<' 45'"55B'
:<"B'&"' "-'75<9'-7'4<C&":9' 45&9'-6"'&" 595::'"5&9=5A 5B H'
59'A-":5"' -' 45'A-"75::&-"'J5&">' ?<B5'4<B' J55"' -JS
<&"5B'<'<"' 8">8<9B5B' ?-?5"!'<"B':45'7-8"B'7<8='
k CH4 <=:&">4<?'7-9'4<C&">E <A 5B' 8;-"'&' 45'4<B'
459'-6"'C&56:'-7' 45' <5:@95<=&" 595::!'<"B'<:' 45&9'
-;&"&-"' ?&>4'B&7759'79-?'459:!':45'B&B' "-'&" 5"B' 45?'
-'4<C5'<C-&A5'&"' 45'B5A&:&-"' &9' 4-?<:' 5"5<>5!'
55&">'4-6'>95<'6<:' 45&9'<"L&5 !':9<&"5B'4&:'&":98AS
&-":' 5'<::895B' 45?':-=5?"=!&"'4&:?&:95::@:'"<?5

>9< 5B' 459' (<R5:' 4<'' ?&>4'J5' _ :!)
B&:A4<9>5B'-7' 45';=<A5'45=B!'<"B' Ó#<C<:-89'-' 5&A5:59!'(<9A4'F*'
=&-4'<7-95' -B'<"B'?<"'J5'7955'79-?' < :!)
45':4<?5'<"B';59&=4<' :<6'A-8=B' K <=:&">4<?'-' 5&A5:59!' ;9&=
-'J5'<C-&B5B@< +7 8 2'$*' !3 I * $$.* _ :!)
$'(<9A4'F*$;9&=*+' !3 $' kK & =:&">4<?'-' 5&A5:59!' ;9&=
(P B.!) (3 . _ :!)
K 89>4=5'-' 5&A5:59!' ;9&='&$

P

*M32
!"

4< : :45@ 6 - 8=B D55 ;' 459 7<& 4! <"B <>955 -' "- 4&">' -'
64&A4' 45 ' 6595 "- ' ;<9 &5:!' =&I<J5 4' 6<:' 789&-8:' < '
45 :8; ; -:& &-"' 4< ' :45 6<:' 95: ; -":&J=5 -E 45 < 5:'
7-9 x459 <A &-":!' -9 4< ' < ;9- ?&:5!' &"' 95=&<"A5 8; -"' 64&A4'
45 ' 4<B ;=<A5B 45 ? :5=C5:' &"' 459 ; -659!' A-8=B' J5 A-"S
A5&C5B' -' J5' J&"B&">' 8; -"' 459 ' 45 :6-95 < ' 59&5<>5'
7-9 Q -J=&>&">' 459 -' ? -95 4<"' :45 6<:' J-8"B -9 ?&"B5B'
@ 5C59 -' &5=B @ @ 4&"D -8!@ :45 69- 5 -' 4&?!' @ 4< ' '
@ 6&=' J5' J-8"B' J ' -89 : ;55A4' -' ?<D5 "-' ;5<AH 7-9 ? '
@ -6"' ?< 59:' 6& 4-8 ' 45&9 A-":5" i' '&:' 5"-8>4' 4< '
@ '&"R895 "- ' 45&9 A-8" 9 ' "-9 45?:5=C5:' &"' ?<D&">'
@ ;5<A5 7-9 45?' 6& 4-8 ' 45&9 A-":5" @ H @ &9 4-?<:'
@ 5"5<>5!@ :45@ 69- 5' -' 5&A5: 59!' @ 4<:' >-"5 --7<9 &"'
@ <::89&">' 45 < 5:' 4< ' 65 6-8=B' ?<D5 "-' ;5<A5 6& 4$
@ -8 ' 45&9 ;9&C& ' <"B' <::5" " 7-9 -89 B&95A &-"' 6<:! &7'
@ -89 ?5<"&">' 4<B' J55"' 65== :5 ' B-6"' J ' -89 :5A95 <9 !'
@ 4< ' 45 ' :4-8=B' 4<C5' J55"' -"= ' =5 ' -' 8"B59: <"B'
@ 4< ' &"' <" ' 95< ' 4< ' ?&>4 ' ;<::' J5 655"' 8:' <"B'
E' @ ;<&"!' 65' 6-8=B' 4<C5' "-' =5::' A<95 -7 45&9 :<75 ' 4<"'
@ -7 -89 -6" @ @ (&"&: 59:!@ :45 :<&B!' @&"' ?< 59:' -7'
@ 4< ' ?-?5" !' :4-8=B' ; - ' ;95:8?5' -' B-' 4&">:' -7 45&9'
@ -6"' 45<B:' 6& 4-8 ' B&95A &-" @ 45 6<:' &? ;< &5" ' 4< '
"- 4&">' 4<B' < ' -"A5' J55"' B-"5' &"' W8<=&7&A< &-"' -7'
5&A5: 59@:' & =5 ' @ 89 ;=5<:895' &:!@ :45 A-"A=8B5B' &"'
459 4<8>4 &5: ' : =5!' Q 4< ! <==' 95: ; 5A :' -9 A-"A5& :' -7'
@ B<">59 =<&B' <:&B5!' -8' :4<==' ;95:5" = ' 5" 59 &" -' A-"$
@ :8= < &-"' 6& 4' 45' -8"A&=' -7 < 5' 4595!' 4-6' 45 :<&B'
@ W8<=&7&A< &-"' ? < ' J5' ;597-9?5B' <AA-9B&">' -' -89 6&==!'
@ 6& 4' 95:59C< &-"' "- 6& 4: <"B&">' -7 45 <8 4-9& '
@ <=!HK5<B ' &5=B5B' -' -8!' A<99 &">' -"= ' 45 & =5 -7 -89'
@ &58 5"<" $ 5"59<= @ H
45 &" 5"B5B!' :45 :<&B!' -' B-' 45 9-C&"A5:' >--B' &"

H =&I<J5 4' -' &9!' 4-?'<:' =5$' K =&I<J5 4' -' 5&A5: 59!' ;9&=' .2'
"5<>5!' ;9&=' .2 _ =44' *&8' ( ) < =44' :!)

LLL ?

*M32 ; 9&=

: ;& 5 -7 45?:5=C5: =&5A-"A<C5B459:5=7 - JR5 < J5 59 ; -=& &A&<" 4<" <= 459 -8"A&=! <"B -8"B5&; <"B 45 &" 595: : -7 45 < 5: . * 3 A=5<&= 4<" R&&5 < 5: ""B5&K: --B & 45 ?5<" - :8995"B59 7-9 45?' 45 -JR5A'7-9 64&A4 45 '4<B J559& 7&>4 &">'7-9 65" 5<9:! <"B 64&A4 <=-"5 4<B J9-8>4 E 45?' - 459 :&B5&"' -;;-S :& &-"' - 45&9 -6"' -C595&>"' H =&5"' 89>4=5 '95?-"S : 9< 5B 6& 4 459! @ :45 >956': - ;<::&-"< 5 <: :45 7-9J<B5 @ 4&?' - <9>85 <" ? -95'@H<"B <=:&">4<?'A-"A=8B5B < '=<: ! 4<' @459 B&:;-:& &-"' 6<: 8"<; - 5?J9<A5 <" @ ?< 59 -7 65&>4 @ 5&">! <: :45 6<:! &"A<;<J=5 -7 A<99 &">-"' < 6<9! <"B B5 59?&"5B8;-"' <;5<A5 64&A4 6<: =&D5= - J5 < B&:4-"- 9<J=5 -"5! 45 A<?5 - 6&:4 4&?:5=7 4<' "5>- &< &-":7-9&' :4-8=B J5 -;5"= :5'-" 7-- ! <"B 4<' 5&A5: 59 :4-8=B 4<C5 45 A-"B8A' -7 45?' 45"! <' =5<: ! 4595 6-8=B J5 "- 95<A459 ! <"B "- <9 &A=5: A-8=B J5 :5A95 = 'A-"A=8B5B 64&A4 6-8=B "- 5"B895 B&:A8::&-" J57-95 45 6-9=B K

8 45" &A &B&">: 659H "-6 A-?&">' &"' -7 9<"A&: 9<D5' = 4<' 45 <"B - 459: 4<B :<&B J57-95 -7 45 #8="59<J&=& '-7 ;<&"' 6<: ?-95 4<"' A-"7&9?5B! <"B 45 ">=&:4! <=95<B 'C<&"' -7 45&9 459-! 6595 9<&:5B -5" 48S :&<:?' <' 45 : ;=5"B-89 -7 4&: :8AA5::5: 45 5775A' &"' 89-;5 6<: <=?-:' <: A-":&B59<J=5' 45 <>>95::&C5 ;-659 -7 ">=<"B 4<B ;<::5B 4& 459 -'7-9 "- 4&">' 45

@ <=:&8>4<?' - 5&A5: 59! ;9&= < !3 $ * ! 3 B*() (3

K @ 55&">' 459 (<R5: &:' :-' &"S A=&"5B -' 45 ;5<A5! <"B &:' 7-8"B <= ->5 459 :-'8"<; ' -' ;9-:5A8 5 45 C<9! 'A<"" - ' J8 ' ##&<:4 -89 -9B$:4&;' -' 45 <;9&"A&;<=B5<=59 4595&"! :' 65==' &"' 95:;5A' 7-9 F@-89 AR6"' 4-"-89!<:' 4<' *'4-;5'&'6&==' J5 ;59S 7-9?5B 6& 4 J- 4 4-"-89<J=5 <"B J7-7&<J=-'A-"B&&-":!64595<:' 'B-8J &7'&';<::' -' - 459'4<"B:'&'6&==' "- ' J5 :-'A<9578== 'B5<='&" @_ ' O'8!(66 '_($* !3 $; 9H' .* :!)

><&"! (< . F! <=:&">4<?' 69& 5:' !

@ ' 4&"D"-6' 4<' 45'-"= ' 46<9 :' -89 -9B:4&;' 95A5&C5:'>9-65 4' -8 ' -7 459 (<R5: @:' -6"' B&:;-:& &-"! 64-?' 'B-'7&"B B<&= '?-95'<"B ?-95 8"<; ' -' 5?J9<A5 <" ' ?< 59 -7 65&>4 @_ :!)

&& C; : 95"> 4 -7 & :<9?!&7 -"A5 9<&:5B -: 9&D5! J5A<?5 ?-95 A-995A = < ; ;95A&< 5B 45 " 659; ?59A4<" : >&@56

*M3xM '!" A<8 &-8:-7<BC<"A&">?-"5 -<9?< <9?<4&9":5&7 A-8=B "-J5=&5C5 4< 4595 6-8=B J5 <" ?-95 <=D -7 ;5<A5 -" 45 59?:-77595B 49-8>4 "B95<B5 --5!<"B 6<:<:?8A4 >9< &7&5B <: 45 6<: <: -"&:45B -7&"B 45 %855"8"A4<">5B

:5A-"B >9-8; -7 <>5" : 4<B J 4&: &?5 >9-6" J5:&B5 45 7&9: &9 <?5: 9-7 :4<B <A-8:&" "<?5B -B5"4<?!&" :-?5 -7&&A5 <J-8 45 9&"A5 -& <9?<@: ;59:-" 9-?4&: ?<" 9-7 :=5<9" 64< 6<: >-&">7-96<9B J5 655" <"79<"A4& <"B B5 --5!<"B 4<C&"> 9&:D5EB 4&: "5AD &" 45 :59C&A5 -7 ;<&" 7-9 ?<" 5<9:! 45 B&B "-=&D5 -:55 - 459:: 5;&" J5 655" 4&?<"B 45 798& -7 4&: =<J-89: <9?< <B?& 5B 4&: ;9&-9& -7 A=<&?!<"B ;9-?&:5B @ 4< 45 B-&">"B 45 4<"D:7-9 @ 45 ;5<A5 :4-8=B "-J5 <D5" 79-?4&?645" & 6<: @ B5<= &" @H 9-7 :4<B =&I<J5 4@:5<9!<"B & &: ;-::&J=5 4< :45 459:5=7!D&AD&">:<::45 6<:?-95<"B?-95<><&":45 95: 9<&" 4< 89>4=5 =<&B 8;-" 459! 6<:>=<B -7 <"- 459 A4<""5= -7 A-??8"&A< &-" 6& 4 64&A4 89>4=5 4<B "-4&"> -B- :5A-"B <=&<" ?59A4<" "<?5B 8>8: &" 9<7&>" ! 64-:5 J8:&"5::=< J5 655" ">=<"B <"B =<"B59:! 6<:7-8"B -A-??8"&A< 5 6& 4 -B5"4<?-9 -> 4&?:5=7 -" -AA<:&-":-45 9&"A5 -7 <9?< 49-8>4 -B5"4<?! &9 <?5: 9-7 :<;-=->&:5B J-=E 7-9 9<D5@: C- <>5<"B 7-9 5&A5: 59@: ;95:5"A5 &" 4X -6 -8" 9&5: <=:&">4<?! 45 :<&B! <"B "- 4X %855" 6<: -J=<?5H 9<7&>" 7-==-65B 8; -B5"4<&9 J <::89&"> <9?< 4< :45 6-8=B "- - "= A-":5" A

K 5A=<9<&-" -7 45 ?<""59 -7 ":" "B&<:! A-?-B5 =< 5"&B<B5 5& 95<&">-7 ;5<A5 8"B594<"B -? R-9B -7 5&A5: 59! *M32 _ =44 8*8 .)

K @ :?59Y"B-:5 ?8A4-5"5LA8:<9 < 5 "< <::& B5 =< Bj&B5 9<D5 Y A5: 59! 5A4<"B-=<A8=;<Y / <=:&"> 4"? Y -9-:?<=&" 5"A&-"<B-:! W85 <=< 5 "<A-?5"N<4<Y A-" E A59=-C< ' !` '$* R a!B2 ;9&= K@ %8-5B J (-=5

;5<^5!' J8' 6<:' ?-:' 5<>59' 7-9' &' ' <"B' :<&B' 4<' 45' 4<B' J55"' :5"' J' 45' %855"' 459:5=7!' 6& 4' 45' D"-6=5B>5' -7' ;<9' -7' 459' -8"A&=!' -' 5=-' 4&?' 4<' &7' :45' A-8=B' J5' - 4596&:5' <::895B!' :45' 6-8=B' ;8' &"' 4&:' 4<"B:' 45' ;=<A5:!' 64&A4' 6595' &"' 45' -AA8;<&-"' -7' 45' ">=&:4!' 5:;5A&<=' 45' 7-9 95::5:' &"' -=<"B' <"B' T5<=<"B H

45:5' 6-9B:!' &' 6&=-' J5' -J:59C5B!' <=ŒH 5L<A =' 6& 4' 4&=&;@:' :<5?5"' -' 45' -;5!' 4<' 45' %855"' 4<B' >&C5"' 4&?' 4-;5' -7'<::&: <"A5' &"' 95A-C59&">' 45' ?<&& &?5' 9-C&"A5:' 45' J5 9< <=-7' 45' -6":' 6<:' 79-?' 45' J5>&""&">' <"5A5::<9' ;<9' -7' 45' 9<":<A &-"' ' J8' &' 4<B' "-' J57-95' J55"' :-' ;=<&"=' 5L;95::5B' 4595' 6<:' <75<9' 4<' &7' &' 6<:' :;-D5"' -7' --' ;=<&"=!' 45' 9&"A5' ?&>4' 95C5<=' 64<' 6<:' >-&">' 7-96<9B' -' 45' <5:!' -' :456' 45?' 45' 95<=' A4<9<A 59' -7' 45' <=' -"' 64-?' 45' 595' B5;5"B&">' ' 45' <5:' ?&>4' C59' ;9-J<J=' <"S &A&;<5' 459' J' &5=B&">' <=->5 459' 8' 4&=&;' 6<:' =&D5=' 9< 459' -' A=-:5' 6& 4' A-"B&&-":' 64&A4' 6-8=B' 5A895' 4&?' 9&8?;4' -C59' ">=<"B' <:' 65=-' <:' -C59' 4&:' -6"' 9-C&"A5:' ' 45' :5A95' 6<:' "-' D5;' <7 59' <=-' ' <A-;' -7' <=5 59!' A-" <&"&">' <B&: &"A' <AA-8" ' -7' $4<' 4<B' ;<::5B!' 6<:' :5"' J' :-?5' -"5' &"' 45' <5:' -8"A&=-' 89>4=5 !' <"B' 45' 7-8"B' 4&:' "<?5' ?5" &-"5B' <:' <?-">' 4-:5' 64-' 6595' :<&B' -' 4<C5' <;;9-C5B' 7' 9< &>" ' 4<B' 95<==' J55"' :5"' 6& 4' :8A4' <?5::<>5' J' 45' %855"!' <9?<' 4<B' "-' ?-95' -' B5:&95' 45' J& 59=' 5L;95::5B' <"L&5 ' -7' <=:&">4<?' &:' A-"A=8:&C5' 4<' 45' %855"' 6<:' :59&-8:=' ?5B& <&">' 95<A459' ' &7' :45' 4<B' b=-' '>-"5' 45' 78=-' =5"> 4' -7' 9<7&>" @:' 5"><>5?5" :' 7-9' 459!' 45' 6<:' :&"A595=' <79<&B' 4<' :45' 6-8=B' "-' : &AD' <' 45?!' &7' :45' A-8=B' "-' - 4596&:5' -J <&"' ;5<A5

@' @ 5'<=="&&7&9""'5"'C-=C59' '5" 95><9' ' T5=<"B< - . ' ' - ! ' 8"5' '# ' (<>KK'=-' W85' -A8;<"' ' ;-:55"!' ' 5"' ;<9 &A8=<9' =<:' 7859I<:' B5' -=<"B<

4&: :5A-"B 5" &95= A-" 9<J<"B "5>- &< &-" 89>4$ =5 B5 59?&"5B < -"A5 -5L &">8&:4! J57-95 & 4<B ;<9:5B J5 -"B 4&:A-" 9-= -B5"4<?J9-8>4 -" ">S =<"B <;-=& 5=5 59 -45 %855" 79-?<9?<! 95W85: S &">4<:45 6-8=B 49-6459 ;9-;-:<=:&" -7-9?5 <"B 9<7&>" 6595A<==5B&?? 5B&< 5= J57-95 45 -8"S A&=! 64595 -45&9 :89;9&:5 <"B A-"78:&-" 45 7-8"B <=:&">J<?:& &">< 89>4=5 @: :&B5 45 6595 A9-::$5L<?&"5B <:&7 45 6595 A9&?&"<=:! <"B 4<C&">J55" 5?;=- 5B J 9-7:&" <?&::&-" B&: &"A= A-"7&S B5" &<=! 45 D"56 "- 64< -<AD"-6=5B>5 -9 -B5" H 9<7&>" 6<: <:D5B &7 45 4<B J55" !:5" -<9?< J 45 %855" W 5W8&C-A< 5B -B5"4<?4956 45 ?5::<>5 -" 45 -" 9-==59 -7 45 -8:54-=B 45 6595 J- 4 J56&=B595B <"B <: -"&:45B 89>4=5 5"W8&95B 645 459 45 4<B ;9-?&:5B &" 45 %855"@:

K 4<: 5-8"587! &< < ?5?-&9 -" 45 : < 5 -7 ">=<"B! :< : 4< 45 7-89=5<B&">?5?J59: -7 =&I<J5 4@: -8"A&=<775A 5B -J5 -7 -;-:& 5 ;<9&5:! 6& 4 45&9 ?&: 95::@: D"-6S =5B>5 <"B :<"A&-" 89>4=5 <"B < -" ;9-75::5B -J5 ;<"&:4 <"B < 4-=&A! <=:&">4"?" -J5 95"A4 <"B 9-5: <" !J8 4< &" 7<A 45 06595 <==<>955B @ x < -" ! J5 :< :! Q5 =5 9`:-9&59 -" -8R-89: 7<& :5?J=<" B5 5"&9=5 ;<9& 5 7<C-9&:59=5: <77<&95:B8 - B@ :;<>"5! ?y?5 B5: < 4-=&W85:! B<":A5 - <8=?5 5 -?5 B5 5&A5:59 5 <=:&">4<?! <8 A-"S 9<&95! :5 :-" -8R-89: ?-" 9`: >9<"B: 9-5: <" :! 5 7<& ;<9<b 95 <C-&9 <775A &-" d=<9<"A5 (<&:5"5775 =5 -8 (P !$\+!+( )! !.+0'$!*(*+F)+ C+ B5 =589 "&<& 95 H:5 ;-89 9-?;59=5: ?&"&: 95: B5 A5: 9&"A5:$ =n5 98&"59=5: < 4-=&W85: ">=-&: 5 -8: A58=L W8& 7<C-9&:-&5" =<

5&"5 B@ :A-::5@_ # $ " C-= k Q ;.3+

:95><9B: 45 7-89 ?&"&: 59:! 4&: &: ;9-J<J= 985 <B 89>4=5 @: <"B <=:&">4<?E: =5 59: -5 5&S A5: 59! 4<B <-&&:-"@: =5 59:! <"B 459=5 @:<"B <96&AD@:! J55" 6&& 5" -J5:55" J 45 6-9=B! 4595 6-8=B 4<C5 J55" <A4<"A5 4< &6<: 985 <=:-7 =&I<J5 4! <"B 4< &9 <?5: 9-7:6<: 459 B8;5 8 &7:45 6<: 459:5=7 < 45<9 <9-5: <" !:45 ;=< 5B 45 -459 ;<9 :-:D&=78== 4< :45 B5A5&C5B 45 C59 ?5" 64-6595 95;95:5" 5B <: 45 ;<9&5: &" 45 &==8:&-" 45 :<A9&7&A5B 459<9? &" 45 -6 -8" 9&5: 45 <==<"B &" -?<D&">< ;5<A5! -8 -7 64&A4 :45 6-8=B 459:5=7 4<C5 J55" 5LA=8B5B " 4<: 5<8"587@: 4 ;-45:&: 459 64-=5A<9559J5A-?5:< &::85 -7>9<S 8& -8:<"B J=8"B59&">?5"B<A&

"<?5' -' :8995"B59' 45' A<8 &-"<9 ' -6":' 45"' 45 ' < 5?; 5B' -' B5" ' &!' 89>4=5 ' :<&B' 45' 4<xH<'=5 59' -7' <9?<@:' &"' 4&:' ;-::5::&-"' B&&K5A=' :< &">' 4<' 45 ' 4<B' 45 ' 6595' B&:?&::5B' &"' B&:>9<A5 ' 45' %855"@:' 95;8 <S &-"' 6<:' :<C5B' <' 45' 5L;5":5' -7' 459'&": 98?5" :# <"B' 7-9' 459' -6"':<D5!' <"B' -' "58 9<=&:5' 45' 5775A '&"' -==<"B!' :45' 6<:' A-?;5==5B' -' B5" ' ;8J=&A=' 4<' :45' 4<B' :<"AS &-"5B' 45&9' -C59 895:' <' <==' <8>4 ' &"' 459' C"' "5 !' <"B' J5 9< 5B' J ' 459' 5L<>>59< 5B' 5<>59"5::!' :45' 6<:' "-6' -J=&>5B' -' A-"7&9?' 5&A5: 59'&"' 45' ;-:& &-"' 64&A4' :45' 4<B' J55"' :-' 789&-8:' <' 4&:' 95A5&C&">!' <"B' 6<:' B9&C5"' -' 8"B59 <D5'&"' 5<9"5:' 45' A<8:5' 64&A4' :45' 4<B' :-' 7<9' ;=<?H5B 6& 4' 45' 95;=&5B' -' <9?<@:'=5 59!' B&:<C-6&">' 459' 5?&::<9&5:' <"B' B5A=<9&">' 459' ?5<"&">' -' 4<C5' J55"' 8 59=' ?&: <D5"' 45' :<&B' :45' 4<B' "-' &" 5" &-"' -7' ?<DS &">'<:5;<9< 5';5<A5!' <"B' 4<' :45' 6-8=B' B575"B' 45' -6' -8" 9&5:' &==' 45' &">' >9<" 5B' 45?' 4-"-89<J=5' 59?:' 45' C9-5' -' 45' <5:' A-?;=<&"&">' >&E5<='-7' 45' 69-">' 64&A4' 45 ' 4<B' B-"5' 459' &"' >&C&">' A95B&' -' &"R89&-8:' 5;-9:' 45 ' -8>4 ' -' 4<C5' D"-6"' 459' J5 59!' :45' <&B' 459' 4-"-89' HK' ;95A&-8:' -' 459'' <"B' :45' C<:' "-' -' 7--=&:4' <:' -' A-"A5&C5' 4<' 4595' A-8=B' J5' <' :-8"B' ;5<A5' J5 655"' 459' <"B' ;<&"!&"' 64&A4' 45&9' :895 ' 6<:' P-' A-?;9545"B5B H

Q -89' =-9B:4&;' ?<' :55!@ 69-5' <=:&">4<?!&"' B5S :A9&J&">' C4<' 4<B' ;<::5B' -' 5&A5: 59!' Q' 45' 5775A :' 64&A4' Q'<95' 69-8>4 ' J ' :8A4' 65<D' ?&"&: 59:' 45 ' 4<' 4<C5' J55"' 45' 5?;=-?H59:' -7' 45?' <95'<:4<?5B' -7' 45' ?< 59@ H5 ' <=:&">4<?' : &==' 75<95B' 4<' 45' B<">59' 6<:' "-' 5' -C59' Q' 45' B5:&95' -7';5<A5' &:' :-' >95< !@ 45' :<&B!' Q' ' B-8J' 45' <": C59' 6&==' "-' J5' :-' 4-"-89<J=5' <:' 6595' 7&"' @5' <"B' 45' 5C5" :' A-"7&9?5B' 4&:' ?&:>&C&">:

K =&I<J5 4' -' 45' < 5:'-7' -=$' K' #<=:&">J<?' -' 5&A5: 59!' 8"5' 8"5' *M$*M _ =44' *'8'() I1$ 8='1 _ !3 $ ' * B*() (3

- - - (((

*M32
4

M32 8"5

<AD$: <&9: 9<":<A &-":' A<"' :5=B-?' J5' A-?;=5 5=' 9<A5B' ' &'$&:' -"= @'<' ;-&" :' <"B' &" 59C<=:' 4<' 45' 495<B' A<"' J5' A<8>4 ' <"B' 45' &?;95::&-"' 64&A4!' ;95S C<&=:' -7' =&I<J5 4@:' ;-=& &A<=' :<><A& ' :8>>5: :' 4<' 4595' ?8:'4<C5'J55"':-?5 4&">'J54&"B!'64&A4!'&7'D"-6"!' 6-8=B'A4<">5' 45'A-?;=5L&-"'-7' 45':-9 ' 7':45'6<:' 5"B5<C-89&">' -' B5A5&C5' <9?<!'459' >5"&8:'6<:'8"7-9S 8"< 5=' -AA8;&5B"' 7-9' 45' "5>=5A' -7'459' 9--;:' 6<:' ;<9'-7' 45'><?5!'<"B' 45';<9'-7'&'64&A4' ?-:':< &:7&5B' 45' 9&"A5' 4<':45'6<:'&"'5<9"5:' 45'=5'459':-=B&59:' B&5'-7'7<?&"5' :45'B&: 9<A 5B' 45' < 5:' :45'B9-C5'459' 985:'79&5"B:' &" -'<795"I'-7'75<9' 7-9' 459'>--B'7<?5' -'C<A&==< &">' 4<B' J55"' 459' -9B59:' 64&=5' 45' "5>- &<S &-":' 6595' ;5"B&">!' 4<' 64<' -"5' B<@:' ;-:' A-?S ?<"B5B' 45' "5L' 8":<&B' 4<?;<>" '<"B' &9' 4-?<&:' 5"5<>5' 6595' <=&D5'<' 45&9' 6& :@5"B

@' 75<9!@:<&B' 45' =< 59' -' <=:&">4<?!' @&7' ?< 59:' @;<::'"-' ?-95'A59 <&"!' 45'6-9=B'6&=='R8B>5' 4<?;<>" @:' @6-9B:' -'J5' -C59' 985!' 4<' 4595'&:' "-' -89'&"' 45' @6-9=B':-'-B&-8:'<"B'8"A59 <&"'&"'& :'B5<=&">:'<:'-89:@H "B'<756'B< :'=< 59' _

@' :4<==' 5==' 459' (<R5: !'&7' ' 4C5' -' :55'459!' 4<' @5LA5;'<'?-95'A-":<"'A-89:5'J5' <D5"' 6& 4':-'&"A-"$ @:<"'<';5-;=5!&'&:' "-' 45' J=<?&">' -7'459' ?&"&: 59:' @6&==' <BC<"A5' 459' :59C&A5' -9'J5 59' 45':<5'-7' 4&">:' @<"B':4<==' 5==' -8'64<' 45'"-6':<'4595'-7'8:!' Q75<9' "-'6& 4-8'A<8:5i' 5C5"'<:' &;:&8:'69-5'-7' 45' @ 95"A4' _ u' 5' <==&:' W8&B5?' 5"&>?<'C5"&8" !' "-"' @C5"&8" !'C-=8" !'"-=8" !'<8B5" !' &?5" ' -?"&<'<"A&;& & @?5 8':8:;5":'5':8:;5A<v

K@ 'B5'C9<'A@5:'=5';=8:'7nA458L' :895=' ' <?' 65<D@< ('7' $* 5'=5';=8:'&"A59 <&"' "`>-A&59' B5'A5:' '8!(7'.' (<'*,$.,' =44' -89'W85'R5';5":5':-&'<8'?-"B5@ *88'()

@ 5=;'?5'&"' 4&:'J8:&"5::'<"B'<BS K 5"5<>5' -' <=:&">4<?!' (<' C&:5' ?5j' A-"A=8B5:' 5"5<>5!'@7-9 FM$ 8"5'1 _ =44' :!)

4&:' ?8A4' &:' A5&E <&"' 4595' 6595' 6-' :5A95' "5>- &<S &-":' >-&">' -"' 6& 4' <9?<' :&?8= <"5-8:= !'-"5'&"' 64&A4' 45' ;<9 &5:' 6595' 4<?;<>" !' <"79<"A4&!' <"B' "B95<' B5' --5!' 6& 4' 45' D"-6=5B>5' <"B' 8"B59' 45' B&95A &-"' -7' 89>4=5 "' 45' -459!' A-"B8A 5B' J' &9' <?5:' 9<7 :!' 9<7&>" !' <"B' -B5"4<?' 45' -" 9-==59' 4< &">' B&:S A-C595B' 4<' <' 95<' 7-9' ;5<A5' 6<:' >-&">' 7-96<9B' <:' <79<&B' -7' =-:&">' 45' 956<9B' -7' 4&:' =-">' 95<:-"!' <"B' 4<B' : <9 5B' <' 795:4' A-995:;-"B5"A5' -"' 4&:' -6"' <AA-8" (9<7&>" ' 4<B' J55"' :5"' J57-95!' 4<' 45' ?&>4' 6&"' 45' (:;89: @ H 45' &" 59=-;59:' 6595' 9&;;5B' 8;' <"B' B9&C5"' 79-?' 45' 7&5=B' J' 89>4=5' 45' 4<B' B-"5' 45&9' 6-9D' A=8?:&= !' <"B' 4<B' A-??& 5B' 45' %855"' -' <;-:& &-"' 064&A4' :45' C<:' 7-9A5B' -' B&:-6"

9-7 :!' 45' 95<=' 9<& -9!' C<:' 48:' 7-9' 45' &?5' A45ADS ?<5B!' J8' 45' ?&:A4&57' 6<:' "-' C59' 45' 5' --5' A-995:;-"B5"A5' A-" &"85B' 45' %855"' 4<"D595B' <7 59' ;5<A5' <:' ?8A4' <:' 5C59!' <"B' 5' --5' 4&?:5=7' &:' "5H' 7-8"B' B&95A =' 69& &">' -' 459' B5:A9&J&">' <"' &" 59C&56' 6& 4' <9?<' 45' 9&"A5' 4<B' A-?;=<&"5B' -' 4&?' 4<' 9<7&>" ' 4<B' 695AD5B' 45' 95<' J' 4&:' -77&A&-8:"5::' 5' ;9-75::5B' 4&?:5=7' <:' <"L&-8:' <:' 5C59' -' A-?5' -' 59?:!' <"B' 5' --5' :<&B' 4<' 45' 4<B' -=B' 4&?' 4<' 45' ?8:' "-' A-": 985' 45' %855"@:' =<:' =5 59' --' =& 59<== H' A&;4595B' 79<>?5" ' 7-==-6:' <?-">' 45' <5' <;59:!' &"' 64&A4' 4595' &:' <' >=&?;:5' -7' 95<A459' -7' <"- 459' D&"B' =&I<J5 4' 6<:' 5?;&">' <9?<@:' =- <=' -' 4&=&;!' <:' -"' -4"' 4<B' J55"' 5?;5B' J57-95!' J' 45' -7759' -7' 45' 9-C&"A5:' -' 4&?:5=7 H' ><&"' &"' 45' 6&" 59' 45' "5$

K 5A=<9< &-"' -7' 45' ?<""59' -7' 95< &">' -7' ;5<A5' 8"B594<"B' -' "& ' -9B' -7' 5&A5: 59 _ =44' *8'()

K "B95<' B5' --5' -' 45' %855"@:' =<R5: ! A '.+$F+ _ =44 8'()

"B-9:5B' J' 89>4=5 !' @ &:' "5>-$

A&< &-"' 6& 4' 45' 9&"A5' -7' <9?<!' <7 59' 459' (<R5: ' 4<B' B&:-6"5B' 9<7&>" @

O@' 45' ;-&"' &:' 4<' -89'4-"-89' ?<' ?<D5' 4&:'7-8"B< &-"'7&9?!':895' 4<' 45' 9&"A5'-7' <9?<'7-9'A59 <&"

'9&&

*M32
A -J59

>- &< &-" 7-9 45 95< 6<:95"565B =&&&<J5 =& A4-:5 -4<C5& : -! <"B A-8=B "- J5 6& 445=B <"B 89>4=5 D5; 4&: 4<"B 8; -" 45 : 9&">:! 75<9&">- "= 4< 45 ?&>4 J5 =5B&" : ;& 5 -7 4&?:5=7 - ?<D5 B&:4-"-89&"> A-"A5::&-":

" 45 5< 4 -7 5A5?J59! 5 --5&" 95; = -<W85:S &-" 79-?: 45 9&"A5 -7 <9?< -" 45 59?: 64&A4 45 %855" B5?<"B5B! <": 6595B 4< 45 6-8=B 5== 4&?64< 45 4<B 4&?:5=7 45<9B B&95A = 79-?: 5A&= 45 B5:&95B "-4&">J8 -: 55 45 -6 -8" 9&5: &" 9<"W8&==& ! :8JR5A - 45 9-6" -7 ;<&" 45 4<B :55" 45 ;5-S ;=5 B9&C5" - B5:;59< &-" J 45 C&-=5"A5 B-"5 - 45?J : 9<">59:! <"B 9< 459 4<" <==-6 45?- 7<==&" - 45 4<"B: -7 <" - 459 9&"A5! :45 4<B &" 59;-:5B &" 45&9 7<C-89 -9 459 -6" <"B 459 :8JR5A :@ :5A89& :45 6&:45B 45 ;<"&:4<9? - J5 6& 4B&@<sC"! <"B 45 9-S C&"A5: - 95?<&" 8"B59 45 >-C59"?5" -7 45 &"4<J& S <" : -7 45 A-8" 9 " <"B :45 95W8&95B <" 5"><>5?5" 79-?: 45 9&"A5 -7 45 &">! 4< "-< <AD :4-8=B J5 ?<B5 <7 596<9B: 8; -" ">=<"B - 4&"> 6<: :<&B <J-8 95=&>&-"! 5LA5; <: & ?&>4 J5 A-C595B J <" 5LS ;95::&-" -7 4-;5@ 4< 45 &"> 6-8=B 5?;59 4&:4<9B @B5<=&"> 6& 4 J5"&>"& @ 45 W85: &-" -7 45 -6":6<: A<: &" - <"56 :4<;5 45 %855" 6<: 6&==&"> -6<&C5 459 A=<&?:7-9 5L;5":5:! 45 < 5: 45?:5=C5:! :45 :<&B! 4<C&"> >&C5" 459 :877&A&5" :5A89& 45 < 5: -C59"?5" 645" & 6<: 95$5: <J=&:45B 8"B59 ;<"&:4

&: "- ;<"&:4! J8 4<: <:5A95 ;95$ &" 45 "<?5 -7 459 (<R5: ! -8A4S -":&-" &" >95< A--89 7-9 -9 8><= &"> -==<"B <"B T5<=<"B 7-9 4&?! 7&"B 4&?' ?<9C5==-8: 65==$B&:;-:5B -?564< 4<C5 75= 4&? 45 <"B 4<C5 45 J5: 6< -7 A-":A&5"A5 <==' 6-9B: 64&A4 6595 :;-D5" J5 655" 8 595B J 6< -7 A-": 95A5&C5 :-' <"B - 4596&:5"- @_ $* P 6-8=B >95< = :< &:7 ! 48 &?5 95$$$$! A .N =44 8'() B- 4 "- ;59?& J-8 45 -7759 64&A4 -89 4-"-89 B&B ;95:5" 4&?

<8 4-9& ! 6-8=B 95;< 459!<"B :45 6-8=B 45"95: -95 45?459 >8<9<" 55: H

5=&>&-"6<: 95< 5B -7 ?-95 B&: &"A = &"<J-B -7 <9 &A=5:64&A4 5 --5 ;95:5" 5B -<9?<:--"<7 59 5 8"B59 --D 4< 45 %855"6-8=B B5?<"B "-4&">-" 4&:;-&" ! J8 6-8 J5 A-" 5" 5B 6& 4 :8A4 ?5<S :895:-7 -=59< &-"<: 45 &">-7 ;<&"A-8=B A-":A&5"S &-8:= <=-6 H

5 --5 4<B 5LA55B5B :=&>4 = ! 4-8>4 "- ?8A4 &" 4&:! 45 B&95A &-":64&A4 45 4<B 95A5&C5B 79-?' 89>4$ =5 89>4=5 @:-6"C-9B:: :456 J-6 "5<9= 5C5"45 k EC< ;95;<95B -<J<"B-" 45 95<= A<8:5 7-9 64&A4 45 9-C&"A5:6595A-" 5"B&">

 @ "-89=5 59-7 45 5< 4-7 5A5?J59 -45 9&"A5 -7 <9?<!@ 45 C9-5! Q 4595 6<:-"5 ;9&"A&;<= ;-&" @ C4595-7 7&"B "-?5" &-"! 4< :-?5 -9B59 ?8: J5 @ <D5"4- C 45 ;5-;=5&"4-:5 3 ;-8" 9&5:4< 4<C5 J55":-&": 98A 5B &" 45&9 7-9?-7 95=&>&-"! <:5& 459 45 "5C59 B&B D"-6<" -459!-9 A<""-6& 4-8 ;59&= K-7 B<?"<&-" -45&9 :-8=:A4<">5 45&9 95=&>&-"! Q ?&>4 J -=59< &-" J5 ;9-C&B5B 7-9 7-9 -4596&:5 @ -=B -8!<"B : &== 4&"D! 4595 A<""-J5 <>5"59<= Q95B8A &-" -7 <== 45 "< 89<= J-9" :8JR5A : -45&9 @ -J5B&5"A5 -45 &"> @ O

5 4-8>4 ! 45 :<&B &" <"-459 ;<;59! 4< 45 &">?&>4 A-":5" -45 <A&7&A< &-" -7 45" ! -9 Q95?& @ 45 ;-&" -7 95=&>&-" -45 5"59<= <5:-7 45 64-=5 @ 9-C&"A5: @ =5C5" -7 45 9-C&"A5: J5&"> <4-=&A!

@ "B95<B5 --5 -45 9&"A5 -7 <9?<! 5A 9; <=44 8'()
K Q 45 :8< (<EK :& A-"5" < B& "-": <95 <= &$&?5" 5 :8= ;8" -B5==< 5=&>&-"5A45 B-J &"595B5= 5 <" < -==59<"I< ;59 -==< &B< 5 T5==<"B< -"=5 <= 95 9-C&"A&5 5 5995 <= ;95$:5" 5 8"& 5 A45 ;-9d A-"A5B595 A-" :8< :<=C< A-":A&5"A&< 5 4-"-95 @_ $!38 *6 R '3 L!:.Z$$) $* R !(3 *6'R' . 2 ()) ** (<9A4 1 =44 :!)
O 89>4=5 -5 5 --5! (<9A4 ,! *M3, _ =44 :!)

4&=&; ?&>4 4<C 98: 5B 45 ?< 59&" 45&9 4<"B: 48 & A-8=B "- J5 4<?;<>" :<&B 4< ;5<A5 6<:&?;-:S
*M32 :&J=5 8"=5:: 45 :5 =5?5" -7 95=&>&-" 6<: =57 64-== -
45 &"> 89>4=5 95:8?&"> <7&9?59 -"5 <": 6595B!
4< 4595 A-8=B J5 "- :-8"B A-"A=8:&-" &==&J59 ?&>4
J5 -J <&"5B 7-9 45 9-5: <" : -5"R- 45&9 95=&>&-"
<"B 5L59A&:5 4595-7 64&=5 45 %855"! -" 45 - 459
4<"B! --D -" 459:5=7 -:8;;=5?5" 89>4=5 : B&95A &-":
J ;9&C< 5=5 5&: -7 459 -6" <"4<C5:5" 457 (<R5:
< =5 59 79-? 5 --5! 69-5 -9B 8AD489: -& 9
9<"A&: <=:&">4<?! 64595J & :55?: 4< "-6 C5&
=< 5= 459 (<R5: 4<: >&C5" 4&? -8"B59: <"B 4<
:45 6&== "- &": &: 8;-" 45 ?< 59 -7 95=&>&-"! 78&@ 45
4<": 4<== J5 6& 4&" 45 &">E: 4-"-89 <"B A-":A&5"A5
645958;-" 5 --5 <D5: "-:?<== 4--B 7 :45 D55;
4< A-89:5 <== 6&== >- -98&"! <: 4<C5 69& 5" -459
(<R5: @H

=-6 "5<9= :45 78=7&==5B 8AD489: @: ;9-;45A " 4-6!
J5=&5C&"> 459:5=7 6&:59 4<" <== 45 6-9=B! :45 <><&"
<==-65B 459:5=7 - J5 =5B J &9 <?5: 9-7 :! &== :45
4<B <=?-: B5=&C595B "><"B B575"A5=5::&" - 4&=&;@:
4<"B:! 6&== J5 -=B &"& :;=<A5 (5<"64&=5! 45 5775A :
-7 459 ;597-9?<"A5: 4<B <=95<B J55" :8& A&5" = B&:S
<: 9-8: 4&=5 459 -6" <9? C<: : <9C&"> &" W8<9 59:!
7-9 75<9 -7 6&B5"&"> 45 J95<A4 C&4 ;<&"! <9?< C<:
:-6&"> B&: 9<A &-" &" 45 <5: J 95C5<=&"> =&I<S
J5 4@: B-8J=5 B5<=&">! <"B -7759&"> ;5<A5 - 45?:5=C5:!
-" 7<9 5<:&59 59?: 4<" =&I<J5 4 C<: <5?;&"> -
:5A895 7-9 45? < 45 :<?5 &?5 45 6<: ;8 &">
-8 <== 4&: 5"59>&5: &" 45 6<9! <"B :456&"> 45? 4<
45 ">=&:4 <==&<"A5 :59C5B 45?<: =& =5 &" <9?: <: &"
B&;=-?<A

K 89>4=5 - "B95< B5 --5! K 8AD489: - <=:&">4<?! 8"5
8= &3$<3 _ =44 8'() *3$.3! *M3, _ =44 *88'() E

5"' ?-" 4:' 4<B' ;<::5B' :&"A5' 5&>4 ' 4-8:<"B' 4&>4$' :;&9& 5B' ">=&:4?5"' 4<B' 98:45B' <A9-::' 45' 4<""5=' -' ;95C5" ' -9' 95C5">5' 45' 7<==' -7' " 659;' =<B' 4595' J55"' >--B' 7<& 4' <"B' 95:-=8 &-"!' <"B' 4<B' -9B' 95 !' -9' &9' &A4<9B' &">4<?!' -9' &9' -4"' -99&:' J55"' &"' A-?S ?<"B!' 65" ' 4-8:<"B' 8 A4' <"B' ">=&:4' 9--;:' ?&>4 ' 4<C5' <D5"' 45' 7&5=B' &"' ;5975A ' A-"B& &-" ' 45' < 5:' 6-8=B' 4<C5' :;5" ' 45&9' =<: ' B-==<9' -' 7&"B' 45?' &"' 5C59 S 4&">' 64&A4' :-=B&59:' A-8=B' "55B ' 45 ' 6-8=B' 4<C5' 4<B' < ' 45&9' J<AD:' 45' 5" 48:&<: &A' : ?;< 4 ' -7' 45' ;-;8=<S &-"!' 64&=5' 45' 5"5? ' 6<:' <:' 8"&C59:<== ' <J4-995B' ' <"B' <9?<!' 5L4<8: 5B' J ' 4&:' 577-9 :' &"' 45' >95<' :&5>5!' 6& 4' J&:' A45: ! 5?; ' <"B' 4&:' 9<"D:' 4&""5B' <=?-:' -' 5L &"A$E &-"!' A-8=B' "-' 4<C5' 5"A-8" 595B' 45?' 6& 4' < 4&9B' -7' 45&9' "8?J59:' ' =-:' J< =5' 6-8=B' 4<C5' J55"' 7-==-65B' J ' < 95"565B' 95C-=' -7' 45' 95A-"A&=5B' 9-C&"A5:!' <"B' =&I<J5 4!' &7' :45' 7-8"B' ;5<A5' :-' "5A5::<9 ' -' 459!' ?&>4 ' 4<C5' B&A < 5B' 459' -6"' A-"B& &-":

45' ;-:& &-"' 6<:' "-6' 95C5&@:5B' <=7' <"B' ?-95' 4<"' 4<=7' -7' 45' J9<C5' ?5"' 64-' 4<B' A-?5' -C59' &"' 45' ;<:' 5;5?J59' 6595' B5<B' 45&9' ;=<A5:' 6595' <D5"' J ' "56' =5C&5:' >< 4595B' &"' 4<: 5' 8;-"' 45' 4&>46< :!' -9' J ' ?8&"-8:' 95>&?5" :' -7' 9&:4' D59"5:!' A-"75::5B' < 4-S =&A:!' <"B' =5B' J ' < ?<"' 64-' 6<:' -"= ' 6< A4&">' <"' -;;-9S 8"& ' -' J5 9< ' 4&:' -C595&>" ' &9' &==&<?' <"=5 !' 64-' 4<B' 7-9' :-?5' 5<9:' J55"' 5?;=-R?B' &"' 95=<"B!' 6<:' A<==5B' -' -"B-"' 6& 4' <:' ?<" ' 9&:4' <:' 45' A-8=B' J9&">' 6& 4' 4&?' &:' <"A5: -9!' J ' B&: &">8&:45B' 95<A459 ' -"' -:6-9 4' 7&5=B!' 4<B' >&C5"' 45' A9-6"' -' =&I<J5 4@:' >9<"B7< 459' 45' &": ;&9&">' 5L<?;=5' 4<B' ;594<;:' 6-9D5B' P;-"' 4&:' &?<>&"< &-" ' 5!' --!' ?&>4 ' ;=< ' <' ;<9 ' &"' <' A4<">5' -7' B "<: ' 5' A<?5' -C59' 6& 4' <' A-":&B59<J=5' 7-9A5' 4&=5' &"' -"B-"' 45' 6<:' &"' 45' A-"7&B5"A5' -7' 45' 5:8&:' 5' D"56' ;<9 ' &7' "-' 45' 64-=5' -7' 45

*M32
==

LLL"&

*M32

<J&"> -" A-": ;&9<A 5 A-995: ; -"B5B 6& 4 (5"B-I<!
<"B A-" 9&C5B -A-?? 8"&A< 5 6& 4 -9B 98"B5= &"
45 -6 59 45"-9B595B -45 -6 -8" 9&5:! 45
?<B5 ;95 5L :789 B5=< &">&" -"B-"! &" 45 4-;5 4<
45 %855" ?&>4 J5 D&==5B! -9 4< 45 ;<"&:4 7=55
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"-=-">59! <"B 45 6<: -J=&>5B -:<&=! 45 8"B59 --D -
6< A4 4&: ?-?5" ! <"B 645" 45 A-8=B B-? -: &"R89 !
95C-= 6& 4 4&: 95>&?5" -<9?< H f
-"5 6<: "-6 45 5" 48:&<: ? 64&A4 4<B 65=A-?5B
45 =<"B&">-7 5&A5: 59 " 45 ;=<A5 -7 & 6<: :8: ;&S
A&-" <"B ?&:>&C&">! B&: 9<A 5B A-8"A&=:! <"B B&C&B5B
;89; -:5: =&I<J5 4 64&=5 :45 6<: B&;=-?< &:&"> 45=B
459 <9? &B=5 <9?<! :4-9 $4<"B5B <: 45 6<:! 95< 5B
6& 4 4&: 4<"B 8; -" 4&: :6-9B! <"B 6<: 7-9 5C59 A<9C&">
:=&A5 -" :=&A5 79-? 45 95A5B&">79-" &59: -7 45 < 5:
45 &?5 -7 H5&A5: 59@: &": <==< &-" 45 6<: <A &"> -"
45 (58:5 5 45=B 45 9&C59 <: 7<9 <: #5"=--#5"=--
<"B 9<C5 6595 &" 45 4<"B: -7 45 ;< 9&- :! J- 4 -7
45?: 9-"> 7-9 95::5:! 45 =< 59 5:;5A&<== ! -" 45 B5S
75"A5: -7 64&A4 45 ?-: 5=<J-9< 5 5">&"559&"> :D&=-4<B
J55" 5L;5"B5B 7 59 45 7<&9 -7 " 659; 45:5 6-
-6": 6595 <9?<@: "5L -JR5A 45 :&5>5 -7 9<C5
6<: 7-9?5B &" <"8<9 " " ;9&= -=-"5= -99&: <"B
-8" -45"=-45 7-9A5B 45 ;<"&:4 =&"5: <"B 4956 &"

C&"&595 =< 9?<B< B5 # (<>KK ?&:?-; 9-A89<9Y 4<A59 4<: <W85 :5
5"><"85C< B5==<* A8<"B-=5 :5< 7859N< 9 5'"T5=<"B<! -7795A5 5=;<:<9:5
5" <=>8"<J85"< -AA<:&-" <= 9&"A&;-
B5 <9?<@< 5*(' . ')!(*'8 2
*F >-: -! 8=8 C-=' C
(5"B-I<@: =5 59 J5&"> 69& 5" 4955
?-" 4: J57-95 45 :8995"B59 -7
5C5" 59! ;9-C5: 4< <"=5 '65" -
45 -6 -8" 9&5: 6& 4 < B5=&J59< 5
;89; -:5 -7 95<A459

È:8;;=&5:'J8' =&I<J5 4@:'-9B59:';95C5" 5B'789 459'577-9 '
<9?<'A<?5'J57-95' 45' -6"'&"';59:-"'&"' 8"5!'<"B'<7 59'
<'J-?J<9B?5"'64&A4';9-B8A5B'=& =5'-9'"-'5775A!' 9<C5!' *M32
8= È
-' 45' :89;9&:5' -7' 5C59 '-"5!' :8995"B595B' -8"' 5$
?<9!' 45'>-C59"-9!' 6<:' :<&B' -' 4<C5' J55"'A-998; 5B'J '
4&:'?&: 95::' 5&A5: 59'4<">5B'4&?'J8' 5?<&@ @:'><=S
=-6:'B&B'"-' 95A-C59' 9<C5' -9':<C5'#5"=--!'64&A4':89S
95"B595B'<=:-' 4955' 655D:'=< 59' 45' <9=!'A-":A&-8:'
-7' 45'B&:>9<A5!' 5':55&">'"-'6<' -'?5"B'&!':55?5B' -'
4<C5'<J<"B-"5B'4-;5_ -'4<C5'<AA5; 5B' 45'A-"A=8:&-"'
4<' 45' 9-C&"A5:'6595'B--?5B!'<"B!'J5&">'<'J- -?'
?<B5' -7' J<:5' ?< 59&<=!' "- 6& 4:<"B&">'>=5<?:' -7'<
J5 59'"< 895'<' &?5:' :456&">'&"'4&?!'6<:'6&==&">'<'
=<:' -' ;=<'&" -'4&:' ?&: 95::@:'4<"B:

5'8"B59: --B'459'<'=<:!'<"B':<6'64<':45'6<:'<&?$
?>'<' @ :' 45'A<8:5'&:'"-6'7-==-65B!@ 45'69- 5' -'459'
-"' 45'5 4'-7' 8"5!'Q&'&:' "-' 6-9 4' 45'A-:'-9' 45'
QB<">59' -89' (<R5: '6<:'&"C& 5B' -'J5':-C595&>"!'
Q;9- 5A-9!'-9'<&B&">'79&5"B' -8'A4-:5' 45' 4&9B!'<"B'
@&7' -89'<&B'4<B'J55"'&"B55B':-'>&C5"' 4<' 45:5';5-;=5'
QA-8=B'4<C5'J55"'<::895B'-7'&:'A-"&"8<"A5!'&7' -89'
@ (<R5: '4<B' <D5"' 45&9'A<8:5'&"B55B' -'45<9!' 45'
Q6-8=B'4<C5' 45"' &5=B5B'=<9>5'A-"9&J8&-":'7-9'<" '
@"8?J59'-7' 5<9:!'<"B' "-' ;9<A &A5:'A-8=B'4<C5'B9<6"'
@ 45?'79-?' -8' 8' 45' "-6' ;59A5&C5'4-6'65<9'
@ -8'<95'-7' 45?!'<"B'4-6'6&==&">' 4<'<" '-459'4<B'
@ 45?':-' -89' (<R5: '6595'9&B'-7' 45?' 45'6-8=B'
Q9< 459'4<C5'=&C5B'6&4'J95<B'<"B'B9&"D'8"B59' -89'
@ (<R5: @:' ;9-5A&-"' 4<"' 6&4'<==' 45&9' ;-:5::&-":'
@P"B59'45' &">'-7' ;<&" ' '4<:'<=?-:'J9-D5"'45&9'
@45<9:' -' 4&"D' -89' (<R5: ':4-8=B'"-'A<95'<" '?-95'
@7-9'45?' 8'&7' -8'?5<"':--"' -'=5<C5'45?'45'6&==
@J5'>-"5'<=?-:'J57-95' -8'45<9' -7'&' ' 6&==B-'? '
@J5:!' 45957-95!' -'>5'&" -'?'4<"B:' 4955' -9'7-89

/ / /

*M32

? -: ; 9&"A&; <= ;=<A5:&" -9 =& -==<"B!:-<: -8 :4<==
98=5 45:5 ?5"!<"B ?<D5 6<9<"B ;5<A5 <: -8 =&:
<9 "- 6& 4 9&== 7-9 <" 4&"> & 4 45:5 ;=<A5:
-8 A<" 4<95 64< ;5<A5 -8 6&==&"<" 4-89!<"B 4<C5
-89 B5J :<"B A4<9>5:95<B&=E<":6595B 8 -89
H(<R5: ?8: B5<= >9<A&-8:= 6& 4 45?<;95:5"!
<"B &7 -8 ?5<" -=5<C5 45?D55;& - -89:5=7
4< 5C59 -8 ?5<" 95<== -B-! -8 ?8: ;59:8<B5
45?"-6 4< -8E?5<" :&"A595= <"B 65P J 45?
45 4<C5 B5:;59< 5 A-"A5&; :-7 -89 (<R5: H
5&A5: 59 ;9-J<J= H<: :55D&"> ;<9B-" 7-9 4&: 7<8= <J-8 45 >-C59"-9:4&;!<"B 8"B59: --B 45 6< -; 89S A4<:5& 9855 4< <;-65978= ;<9 &" ">=<"B 6<:-;;-:5B -&" 5975&@5"A5&" 45 5 459=<"B:" <"B& &: 985 <=:-4< 45 %855"!<: 45 :-C595&>" -7<B&C&B5B ;5-;=5! 6<:J-8"B&" ;98B5"A5 -A-":&B59 45&9 -JR5AS &-": 57-95A-??& &"> 45A-8" 9 -<W8<995= 6& 4 :8A4 < ;-659 <: ;<&"! 4595 6595 B-8J =5::59&-W:E B&77&A8= &5: -J5 A-":&B595B! <"B 45 %855" ?&>4 95<:-"<J= B-8J 645 459 ">=<"B 6<: 5W8<= -45 5"A-8" 59 8 645" <== <=-6<"A5: <95 ?<B5! <==-6S <"A5: 5C5" 7-# 45 -J=&W8& &5: -7 459 -6" B&:;-:& &-"!H"- 5LA8:5! "-;<==&< &-" J5 :8>>5: 5B! - 45 &" 5" &-": - 64&A4@ 5&A5: 59 :<6 4< :45 6<: :&== A=&">&">! <"B 64&A4 45 6<:6&==&"> - 789 459 &": ;& 5 -7 4&: -< 4 - J5 =- <= 7- 45 < 5:

5 59 < <" & ?5 -7 459 =&75 A-8=B =&I<J5 4 8"B59S : <"B 4< 459 =&J59 -7 <A &-" 6<: &" 597595B 6& 4 JC 5"><>5?5" : &" - 64&A4 :45 4<B 5" 595B ??5B&< 5 A-"C5"&5"A5 6<: 8"&7-j?= 459 ?5<:895 -7 -J=&>< &-" 45 &?;-9 <"A5 -7 5&A5: 59@: A-"A=8B&">"<BC&A5 6<: --; =<&" - J5 "5>=5A 5B 7 45 < 5: ?<B5 ;5<A5 7-9 45?:5=C5:! :45 6<: =-: " 45 &" 59C<=! 45957-95!

&"' 84&A4' =&5' "5>- &< &-"' 6& 4' <9?< 6<:' :8:;5"B5B!' <7 59' 9<7&>" ' 4<B' J55"' B&:-6"5B!' :45' :5" ' <' :5A95 <9 !' (9' &=D5:!' -' 45' <>85!' -' &":&:' <><&"' 4<' 45' :8:S ;&A&-":' -7' 459' 6595' 8"R8: ' &=D5:!' 64-' D"56' "- 4&">' -7' 64<' 4<B' ;<::5B!' <::895B' 45' < 5:' -"' 4&:' 4-"-89' 4<' 45' 8"7<C-89<J=5' 95;-9 :' 6595' 8"7-8"B5B"' <"B' 45' < 5:!' 6E&==&">' -' J5=&5C5' 45' J5: !' Q><C5' 459' (<R5: ' Q &??-9 <=' <"B' 5 59"<=' 4<"D:!Q' <"B' 65R@5' Q9<&:5B' 79-?' Q B5:;<&9' -' 45' 45&>4' -7'R- ' <"B' A-"7&B5"A5 @ H' 5&A5:S 59!' --!' 6<:' <==-65B' -$ D55;' 4&:' -77&A5!' <"B' "<-"5 _ <' ?-&5 ' -"= ' -7' 64<' 6<:' B85!' J8 '75"-8>4' 7-9' &??5B&< 5' ;89;-:5:_ 6<:' :5" ' -C59' -' ;<' 45' :-=B&59:' ' A<?5' J8 'R8:' &"' &?5' 5>=5A' <"B' :87759&">' 4<B' ;9-B8A5B' B&:<775A &-"' <"B' B5:59 &-"!' <"B' 45' ><99&:-"' <' =8:4&">' <:' -"' 45' C59>5' -7' 5L;=-:&-"' Q <:' "&>4 !Q' 69-5' &9' 4&=&;' &B"5' -"' 45' R7 4' -7' 8>8:!' Q' 65' 6595' <' 4a' Q ;-&"' -' =-:5' <==' 45' :-=B&59:' <95' 7-89' ?-" 4:' J54&"B' Q &"' 45&9'$;<!<"B' &7' -"A5' 45' ?8 &" ' 45' -6"' &:' =-:' Q ' B&B' "5C59' 4&"D' -89' "< &-"' 4<B' J55"' :-' <;' -' >-' -' Q 45'5"5? ' <:' ' 7&"B' 45? @ H' 45' <9? ' >5"59<== ' 595-"' 45' 6-9:' 59?:' 6& 4' 45' ;5-;=5' ==' ;<&B!' 45' -8=B' ;<' &==' 7-9' 64<' 45' A-":8?5B!' <"B' &' 4<B' J55"' B<">5&-8:' -' <D5' :-=B&59:' J5 -"B' 45' 6<==:' -7' <" ' -6"' 64&A4' 45' 6595' W8<9 595B!' =5:' 45' &"4<J& <" :!' -"A5' W8&' -7' 45?!' :4-8=B' 9578:5' -' <==-6' 45?' -' 9a 89" H' 45' &"A<;<A& ' -7' 5&A5:59!' --!' 6<:' >9-6&">' 5C&B5" !' =&5' 4<B' J55"' 8:5B' <:' <' =<' 7&>8995' -' B<II=5' 45' aRH5:' -7' 45' 9-C&"A5:!' 64&=5' J-4' 45' <"B' 45' 6595' ?-AD5B' J' 45' :5A95' 95< ' 45' 95< ' 6<:' 4<">&9&>' 7&95$ <9?<' J<B' 45' 7&5=B' -' 4&?:5=7!' <"B' 45' <B?&"&: 9< &-"' <"B' 45

6 *A ' &' $ $/ ' 44' X X' 7-9' ;95C5" &">' J5' B<">59:' =&D5' -' <=44' *88'() 5":85' 79-?' J5' ;95:5" E: <5' -7' ' &B"5' -' "=:&">4<?!' 8>' 1$' J5' P"& 5B' 9-C&"A5:!' 5; ' ._' '<=44' !) =44' :!)

K H=< 5:' -' J5' J<B' &"' A-":8=<&-"

7&"<"A5: -7 45 9-C&"A5: 65" - $695AD <"B A-"78:&-"
" 45 ">=&:4 <9? 4595 6<: "5& 459 9B59 "-9 A-?S
*M32 "H: ?<"B 5&A5: 59 6<: ;=< 5B 8;-"=&D5 <"&": 98?5" J
7<C-89& 5: <"B 7=< 5959: 6<: 45 C&A &?-7 45 <9 :
!J $ 64&A4 45 4<B 4&?:5=79&:5" 5 4<B W8<995==5B 6& 4
4&: <J=5: -77&A59: _ $6& 4 &9 B-J" -9&&: 5:;5A&<== ! 64-!
&7 6-9D 4<B J55" ?5<" ! :4-8=B 4<C5 J55"&" 4&: ;=<A5
6<: 95A-??5"B5B 4< 5&A5: 59 (:4-8=B J5 &"E:-?5
V X&;"-8 <JX5/:-9 !95A<==5B 8"B59E;&&5 `"A5E 4< 4&: ;95$
E :54Aa 6<: 95W8&95B&"$ $">=< &B!@ <"B 4< A-94"&&::&-"59:
H 7A95B& <"B R8B>?5" @@ :4-8=B J5 :5" -C59Q -:5 =5
(45 J9;Da" : < 5j H 5&A5: `9 6<: < <==5C5" :$ -95S
&95 E -! -;5$6&:45B ?-95 J5H&@ B $ 4<" 4&?:5=7 4<
45$A-8=B J5 9&BK -7 4&: 4<"D=5::-77&A5 $ 45 A-?&":7 -7
$ &=D5:! ?65C59! 7-9 45 ?-?5" ;8 <==;<9 &5:&"" J5 59
H48?-&&9 s & =& 5<^4" -459 $ 45 X95< H 4<B J55"$:8:S
;5"B5B<"B 45!+<J&"> -" A-":;&9<A H&"$64&A4! (5;B-I<
$C <: J5=&5C5B ;4<C5 4<B <;<9 ! 4 H J5!5"R 8: B&:A-$C 95B
45 %855" J<B 4a5" ?<9C5==-8:= B&: 9<a 5B!@E J8 4<B
-$ 7<9 -;5"5B$459 5 5:!<: -:5 @ 4n :45 6<: "-&?S
;9-C&"> $R45&@ ;-:& &-"K J H D55;E&&&>$459 <9? &B=5$" <"B
E 5&A5: 59! 4< 45 ?&>4 "-;<9 6& 4@4&: >-C59"?5" !
E&" 5" &95 B&:>9<A5! 4<C&">B-"5 <J:-=c 5=q g&- 4&4>! --D
4`7&5=B -9 <:4-9 EA<?;<&>" &" 45 ?&BB=5 -7 8>8:
<9?< 4<BE 5: <J=&:45B 4&?:5=7$D& 5=B59=<"B! < T8 $
;45" <"BE 85:J59> 45 < 5:E45=B 5C5" 59! 78&E$
$ 459 B-6" 45 ::5=' J8 5C5" 59 6-8=B ;9-J<J= 7<=
<:E 9<C5 <"B #5"=--J<B 7<==5" &7 4` ;<"&<9B:D5; 45&9
4-=B 8E;-" 4` 9&C59" 5&A5: 59 45957-95 ;9-;-:5B -
< 5?; -95A-C59 T8 ;459s 59R -"5 6<: B5=&>4 5B
-J5 ?-C&"> E 45 -8">"-J=5?5" <"B >5" =5?5" 64-
4<B A-?;-C59 -J95<D 45&9=<"A5:-" ;<"&:4 A8&9<::5:!
:<6 < =<: < A4<"A5 -7?55 &"> $ 45 5"5? 45 <9=-7
::5L! &9 &==&<9; 8::5==! -9A7E &==-8>=&J R <"B - 459:

&&&

64-' 45=B' "-m:;5A&<=' A-?"&<"B:!' < <A45B' 45?:5=C5:' -' LLL8'
5&A5:'59%:' : <77' &9'0 4&=&;' &B"5' -J <&"5B' =5<C5' *M32
-7' <J:5"A5' 79-?' =8:4&">' &9' -4"' -99&:' <"B' 4&:'
J9-45=K' J9-8>4' 45' ">H4' A-" &">5"' -7' 45' <5:'
<9? " &9' &==&<?' ;&=5' 4<B' <99&C5B' 6& 4' 4&:' 9&:4E$H
?5"" <"B' 6& 4' 45:5 A<C<=&59:' >=& 59&">' <J-8' 4&?!'
<"B' "&"5'' 4-8:<"B!' ?5"!' 5&A5:59 E5" 5C5B' 5=B5 9=<"B'
85:J59>' :8995"B595B' -' 4&?'6& 4-8' <' J=-6" -99&:E'
:89;9&:5AJ'< 7-9 E-875B5' T8 ;45;!' 64&A4' A-??<"B5B@
45' 9&C59!@ <"B' E>s'9n& 5"5B' 45EA-?&48"&A< &-":' -7'0 45'
-6"' $ 45' ">=&:4E4<BEJ55"' :-'=-">' &B=5!' 4<&!45&&'!
A-?&">&4<B' "-' J55"' A-8" 5B' -"' 45' - "&E& :5=7' EOHKHE'
&==' ;^-C&^&-45B!' <"B' 8"=5::' 95=&5C5B' ?&>4' J5': <9C5B' &&& JE'
< 8995"B59!' $ 45' 9&4A5!' 64-$ 6<:$9&-' &"E'': 95"> 4'
-' -& 759 J< =5!' A<?5'&" -' 45' "5&>4J-894--B!' -' 49-6ú
&"' :8;;=&5:' ;&5:E' J9-8>4' 6-9B' $ 4<' <"'E< 5?;'
-8=B' J5' 9"<B5E-"$ 45' ?-9"&">' -7' 45' 5<9&B' -7' 5;5?$!'
459!' <!"B' 45' D"&>4 :!' <"B' >5" =a?5"' =84 55&K5B' 7-&E!
<"Ed?J8:A<B`' -' 5t' -77' 45K'A-"C-' '$
/ '$B&:;-:&&-":$ A-8=B'0<;;<95" =' 4<C5' J55&$ 6-9:5@
4<"' 4-:5' 64&A4' {5&A5E:59' ?<B5@ 45' J8=D' -7' 45'
<9?' 6<:@ -' 95?<&"' &"' $95:59C5!' &"' A<:5$ 45' ;<"&<9B:'
A<?5'8;'&"'7-9A5'' <"B'45':-';=<A5B' 4<'&7' 4595!'6<:' -'
J5j:59&-8:'7&>4 &4>B'A-8=B' "-';-::&J=' J5' -7'8:5E ;'
5LJ5A75B'' 4<' 45' 6<>>-":' 6-8=B' J5'<AA-?R&<"&5B' <'
9&&-s' J' <:?<=' B5 <A4?5" ' <9?<=&9-8>4 C& 4' 4&?'
5C59' ?<"' 4< '45' A-8=B' :;<95!'FK"B' 45' <?J8:A<B5E!'
;<9' 6595' ;&5;<&&9&>' 8"A-":A&-8:=' -' 5"A-8" 59'E7-89'
4-8:<"BC-7' 45' J5:' 9--;:'&"' 45' 6-9=B' 45' 9575'
4' <=' <J-8' 7&C5' 48"B95B!' ::5L!K' 8B=5!' &==-8>4J!'
&B"5!' 8::5==!' <"=5!' 6& 4'' 45&9' E79&5"BH' <"B' ;59S
:-"<=' 7-=-659:!'7-9?&">@<:&">=5' 65==$?-8" 5B' <K5>&?5"'
-7'5L 95?5=' &995>8=<9' AdC<=9
45' ?-9"&">' 6<:' ?&: E' 45' 6<>>-":' 6595' 45<9B

&" ?8:&A< B&:A-89:5: - 45 &??-9 <=& -7 45 :-8=!
- ;-5 9 ! =< -! <R&B 45 &J=5! <"B 45 C<"& -7 45
6-9=B! 4&:: ;&&&& :<">& :5=7:6<"=&=A5<6< 0 *M3H &4! 4; 4"
&: 7< 459 &9m 5"9 !$4<B B&5B J8 <75 6 ?-" 4:
;95C&-8:= 4&=&;! 64- 4<B ?<99&5B #<=:&">4<?@:
B<8>4 59! 4<B =57 B55B: 8"A-?;=5 5EB E<"B ;<;59: 8"9$
:&>"5B 64&A4 6595 "55B5B &"E <D&">; -::5::&- -7 4&:
&"459& <"A5 45 4-"-89 -7 :59C&"> =&I<J5 4 6<:
<=6< : <" 5L;5":&C5 -"5 &9 5"9 4<B &"C-=C5B
4&?:5=7:-B55;= &" 4&: 9&:4 >-C59"?5" ! 4< 45 4<B
J55" -J=&>5B -B5A=&"5 < ;559<>5! <"B &9 4&=&; 4<B!
J-99-65B :&L 4-8:<"B ;-8"B: -7& 4&?:5=7-8 7-9 4&:
:59C&A5 &" 45 5 459=<"B: <=:&">J<?4<B J5A-?5
:5A89& 7-9 45 =-<"! <"B &9 4&=&; 4<B =57 ! <: 45$:8;S
;-:5B! :877&A&5" ;-659:7-9 45 :<=5 -7 <" 5: < 5! -4-=!B
4&: 7< 459$&"$=<6 4<9?=5:: ;9-C5B - 4596&:5! <: 6&==
J5 -=B &" &: ;=<A5

<9?< &??5B&< 5= <7 596<9B: 5" 595B T8 ;4=5" 8"S
?-=5: 5B ">=&:4 ><99&:-" 6<: =57 &" 45 7-9
<D5" J -99&:! &" A-??<"B -7 -6=<"B -9D5! <
:-=B&59 -7 7-9 8"5! 64-! 4<C&">J55" -" <== :&B5: <"B
-7 <== A955B:! 4<; ;5"5B < 45 ?-?5" - J5 &" 45 :59S
C&A5 -7 45 %855" 5C5" 59 6<: =57 &" A4<9>5 -7
&9 &==&<? <"=5 <"B 4&: D59"5:! <"B 45 A<?;<&>"!
64&A4 4<B J55" =&D5 < J=<I5 -7 : 9<6! 6<: 5"B5B E
5&A5: 59@H;95:5"A5 6<:7-8"B "5A5::<9 &" ">=<"B 0
& 4 45 "< 89<=: ?;< 4 -7 -"5 6-9 4=5:: ;59:-" 7-9$
"- 459! 45 4<B <D5" <7<"A - <"=5 ! <"B A4-:5 -
>&C5 4&? <" &"B5;5"B5" A-??<"B <"B =5<C&"> 45
-C59"?5" - 45 -8"A&= -7 45 <5:! <"B 45
H@? <><&" 6& 4-8 < A4&57! 45 :<&=5B &" -C5?J59 7-9!
-"B-"
6<: 65== 7-9 ">=<"B! & 6<: 65== 7-9 45 %855"!

&J< 4-:5 64- 6595 &" 98: 5B 6& 4 45 &" 595: : <"B
$$$$9 4-"-89 -7 45&9 A-8" 9 6595 "- <==:8A4<: 5&A5: 59!
(+,4 ; 4" <"B 6595 "- <== 6& 4&" 95<A4 -7 459 -6" ;<9<= :&">
4<"B & &78=<: 45 7<&=895 4<B J55"! & 4<B "- 64-== 8"B-"5 45 5775A :-7 45 5L;=-& :-7 9<D5 <"B<"- 459
">=&:4 :-=B&59! 64- 6<: 7<9 <6< <"B =57 -4&?:5=7!
4<B 49-8>4 4&: 64-=5 :8? ?59 B-"5 &?5= :59C&A5
45 B5: 98A &-" -7 45 59<=B&"5:! <"B 45 A98:4&">
-7 45 95J5==&-" &" 45 <=5! 4<B J55" 7-==-65B J <
?8 &"-8: A<=?! -7 64&A4 =&I<J5 4 4<B <D5" <BC<" <>5
- : -; 789 459 :8; ;=&5:! <"B -=5<C5 95=<"B! <AA-9B&">
- 459 7<C-89& 5 45-9 ! - ;< & :-6" 5L;5":5: 45
5L5A8 &-" : : 5?! "- 6& 4: <"B&"> 45 7<&9 ;9-?&:5:
6& 4 64&A4 &9 -4" 599- A-??5"A5B 4&:<B?&"&: 9<S
&-"! 6<: A-" &"85B 6& 4 < C&>-89 64&A4 :55?5B &"S
5"B5B -A=5<9 45 :-8 4 -7& : 95?<&"&"> ;-;8=< &-"
&9 &==&<?$ <"=5 ! 45" &" A-??<"B < -8>4<=!
95;-9 5B 4< 45 4<B 4<">5B 6& 4&" < 5<9! J -9B59 -7
=<6! <J-C5 4955 48"B95B 9->85:! <"B 4<B :-! 599&7&5B
45 95: @ 4< < ?<" ?&>4 9<C5= -C59 45 64-=5
@A-8" 9 <"B "-"5 ?-=5: 4&?@H
@ &C5 ?5 7&7 4-8:<"B ;-8"B:7-9 4955 5<9:!@ :< :
599-! @<"B 6&==8"B59 <D5 -:5 =5 95=<"B -6
Q &: 45 &?5@H 4-8>4 45 4<">&"> Q J -9B59 -7
@=< C@ 6<: 8"B&9"&:45B! 45 5;8 95A-??5"B5B <
;-=& &A<= <?"5: !<"B 45 -AA8;<&-" -7 P=: 59! 64-:5
&"4<J& <" :4<B "- :877595B! J <: 9-"><99&:-" -
A-"7&:A<&-&" &" 45 -9 459" 9-C&"A5: 45 6<: -;S
;-:5B 5 B&B "- 4&"D& B5:&9<J=5@ -<D5 45 A4&57:@
@=<"B:79-?: 45?: -9 J<"&:4 45&9 A<; <&"A&5:! -9 <= 59
@ 45&9 <"A&5" A8: -?:! ?< 59: 4<9B= -J5 5"B895B

@ <"=5 - <=:&" f9=&<?! 5; K 599- - <=:&">P<?! A .+$
K,$K, *M31 _ =44 8' ( ) :!)

*M3M

@ <C5"' -6" :'@H<"B' 45' &"A8?J5" :!' 64595' &"A8?S J5" :' 4<B' J55"' <;;-&" 5B!' A-8=B' "-' 5<A4' 64<' 45' B&B' "-' 45?:5=C5:' J5=&5C5' -9' 8"B59: <"B' 45' =&C&">:' 6595' 7-9' 45' ?-:' ;<9' @7<9?5B'@ -8' -' =< ?5"!' 64-' 5& 459' ;9-C&B5B'<"' 9&:4' 9->85' -' 95<B' 45' :59C&A5!' -9' -J <&"' B&:;5":< &-":' 7-9' 45?:5=C5:' -9' 45&9' f'4&=B95"!' &C& 4-8' ;95 5"A5' -7' -9B59:!' @ -' 4-=B' J5"57&A5:' ? 4 A895

45' &:4-;:!' 64595' 45&9' <8 4-9& ' 5L 5"B5B!' 5?8S =< 5B' 45' 9<:A<=& ' -7' 45' 9-6"' 7<9?59:

@ 45' -9B&"<9&5:'<"B';<9-":!@ 69- 5' "B956' 9-==-;5!' 64-:5' <AA-8" :' -7' 95=<"B' 4<C5' J55"' <=95<B' W8-5B!' @4<C5' :-' -9B595B' 45' ?< 59' <:' ?-:' ?&"&: 59:' <&K5 @: &;5"B<9' ?5"' 56' 4<C5' 7&C5' ;-8"B:'<' 5<9' -'=&C5' @-"!' 45' ?-:' "-' <J-C5' 7-89' ?<9D:' "' 98 4!' 45' <95' :8A4' <:' B5:59C5' "-' =&C&">:' -9' -'=&C5@O

9-?':8A4' :55B'<:' 4&:' "-'>-=B5"' 4<9C5:' 6<:'=&D5=' -' :;9&">' @ 45' &" 59C<=' -7' W8&5 "5::' 64&A4' "-6' @:?&=5 4'-"' 45' < 5!@ :<&B' &9' &A4<9B' &">4<?!' 45' -C59"-9' -7' -""<8>4!' @&:' 5C5"' <:' <' :8?? 59@:' :8"' -"' @<' 6&" 59@:' B< !' 7=< 59&">'<"B' <= ->5 459' 8": <J=5@H

45' :&">=5' 5=5?5"' 64&A4' ;9-?&:5B' J5 59' 4&">:'=<' &"' 45' ">=&:4' :5 =5?5" :' 4<' &C595' J5>&""&">' -' <D5

H -":&B59< &-":' -8A &">' 45':<5' -7' (8": 59!!! d=44' 8'( )

O' 4595' <95' 4595'&"' 4<';<9'-7' 45' A-8" 9' 4<' :4-8=B' 45' J5:' 957-9?5B' x 45' "5&>4J-894--B' -7' 8J=&"' :-' ?<"' A489A45:' 7<==5"' B-6"!' :-' ?<"' A4&=B&@5"' B&:;5":5B' 6& 4<=' -' 5"R-' 45' =&C&">:' -7' 45' 489A4!' :-' ?<"' =< ?5"!' <:' 45' <95' A-??-"=' 59?5B!' :877595B' -' 4-=B' J5"57&A5:' 6& 4' A895!' :-' ?<"' A=59> ?5"' -=59< 5B' -' 4<C5' 45' ;9-7&:-' -7' 4955' -9' 7-89' ?-95' ;<:S -9<=B&>"& &5:!' 64-'J5&">' 45?:5=C5: 8"=5<9"5B'<95' "-'?55'?5"!' 4-8>4' 45' <95' 6&==&">!' -' 5<A4' <"B'&"S : 98A' - 459:!' <:' 64-:-' 454-=B5 4' 4&:' ?&:59<J=5' A-"78:&-"' <"B' B&:S -9B59!' <"B' 4< 4' <"' I5<=' -7' -B' &"' 4&:' 45<9!' ?8:'"-'A4--:5'J8'?<D5' 45' :<?5' D"-6"@_ ' * (' $*' '8!(7 '.' 8=' *M31$ =44' :!)

K "B956' 9-==-;5' -' <=:&">$' 4<?!' A7A' .2$ -C' M!' *M3, _ =44' :!)

/ &">4<?' -' 89>4=5!' (-&@A4',$' 0,"' KMHM/_ =144' :!)

9--' &"' (8": 59' 45' 7&9: ' A-? ?5"A5?5" ' -7' A-=-"&:<S LL'L&"
&-"!' 5"' 5<9:' J57-95!' 4<B' A<==5B' 45' 5" &95' -8 4' &" -' *M3$M
95J5==&-"" J8 ' 45' A4&57:' 64-' 9-:5' &"' B575"A5' -7' 45&9'
=<"B' 6595' B5<B' ' 45&9' A4&=B95"' 6595' &"' 5L&=5!' -9' 6595'
4&B&">'&"' 45' A<J&":' <?-">' 45' ?-8" <&": ' 45' 59<=S
B&"5:' 6595' >-"5' ' 45' ;9-;59 &5:' -7' 4955' W8<9 59:' -7'
45' A=<":' 4<B' J55"' A-"7&:A< 5B' ' <"B' 6& 4' :-?5' ;95 5"A5' '
-7' R8: &A5!' 64595' &":8995A &-"' 4<B' J55"' 9&5B' <"B' 7<&=5B!'
45' A-"W859-9:' 5" 595B' &" -' ;-::5::&-"' -9D!' 599 !'
<"B' &?59&AD' 6595' ?<;;5B' -8 ' <"B' B&C&B5B' -"' ;<;59'
&" -' J=-AD:' -7' 65=C5' 4-8:<"B' <A95:' 5<A4!' -' J5' 45=B' -"'
W8& $95" :' 8"B59' 45' 9-6" $ 5<8 &78=' ;&A 895:' 6595'
B9<6"!' 64&A4' 95?<&"' <?-">' 45' A?&-:& &5:' -7' 45'
5A-9B' 77&A5!' -7' ?-B5=' 9&:4' ;9-;59 &5:' ' >95< ' :W8<95:'
k 6&4<' A489A4' &"' 45' A5" 95' -7' 5<A4"' <' -"5' <">=5' 45'
-9B@:' B5?5:"5!' <' 4-8:<"B' <A95:' -7' ;<9D!' 6& 4' <' 4<"BS
:-?5' =&I<J5 4<"' ?<"-9' 4-8:5' ' -C59' <><&": ' &!' @459'
@ (<R5: @:' ;-9 &-"!@ 7-89' 48"B95B' <A95:!' :5 ' <;<9 ' -'
&"<&" <&"' <' ;-=&A5' : <&-" ' "' <' 4&9B' <">=5' : <"B:' 45'
A4--=!' <"B' 45' 95: ' &:' B&C&B5B' &" -' :?&=&">' 7<9?:!' 6& 4'
-=&B' J<9":' <"B' A< =5$:45B:
-' 5LA5==5" !' :-'&"C& &">' 6<:' 45' A-"A5; &-"!' 4< !' B5:-S
=< 5' <:' 45' A-8" 9 ' 6<:' "-6' 95;95:5" 5B' -' J5!' ?<" ' <"'
">=&:4' <BC5" 8959' 6<:' 7-8"B' 6&==&">' -' 9 ' 4&:' 4<"B'
-' A-"C59 '& ' &" -' 95<=& ' <= 59' <=5&>4' --D' <' >9<" !'
<"B' 4&B=5 ' <"B' 4<?;59"-6"5!' <"B' A<B5 :' -7' 4<=7' 45'
7<?&=&5:' &"' -?59:5 ' <"B' 5C-"!' -65==:!' 4&A45: 59:!'
-;4<?:!' -=5:!' <956:!' 8==59:!' <99&"> -":!' <&&95:!'
&;;&:=5 :!' <"B' :A-95:' J5:&B5:' 45?' 45' "<?5:' -7' 4-:5'
64-' <AA5; 5B' =<"B:' -"' :;5A8=< &-"!' -' 4-=B' < ' :5A-"BS
4<"B' J ' <>5" :!' 4<C5' ;59&:45B' -8 ' -7' 9&:4' ?5?-9 '
J8 ' - 459:' 64-' 65" ' &"' ;5&E:-"!' <"B' A<: ' 45&9' 7-9 8"5:'
&"' 45&9' "56' 4-?5!' 6& 4' 45' A4<"A5:' -7' & ' 7-9' J5 59' -9'
7-9' 6-9:5!' --D' 9--' <"B' :=-6= ' >956!' <"B' J5A<?5' 45

LLL"&

*M32

?5<":! 45 <"B 4-:5 =&D5 45?&"P=: 59<7 596<9B:!
-7>&C&">95=<"B:-?5D&"B-7:<J=5-9B59

8 ?<"R<:-9?4<B -;<::7&9: -C59 45&9 45<B:!
<"B?<" <98B5=5::-" -J5=5<9" " -"5 5:;5A&<== !
45 ?-: 5::5" &<<"B 45 4<9B5: -<AA5;! 4< 45
9&:4 6595"-6-=C5:-J5 48" 5B B-6"<"B B5: 9- 5BH
J8 <9<A5-7 48?<"J5&">:! 64-4<B:-8=:<"B 9&>4 :
=&D5 45?:5=C5:

(5<"64&=5! 4-8>4 (8": 59 A-8=B "- 95:&:! <"B
599- ;9-?&:5B 4< 4595 :4-8=B J5 "-A-"7&:A<&-"
5=:564595! 45 -=B <=<9?95C&C5B 45 5:8& :@ <>5" :
6595 J8: &"95=<"B -9 5=:564595! 7<""&">45 :;<9D:
-7 B&:A-" 5" 49-"&A <>& <&-" &" 95=<"B 6<: <"
5::5" &<<w<9-7 45>5"59<< 4-=&A:A45?5! 4< 6H45"
45 &"C<:&-"A<?5-77<=<: 45< 5" &-"-7 ">=<"B
?&>4 J5B&: 9<A 5B"<"B"5& 459 45 95=&>&-8:&"B&77595" $
&:?-7 45 -C59"?5" "-9 45;-=& &A<<?"5: <==< 5B
45 :8:;&A&-"-7 45 5: 59"<"B -9 459" 9&J5:! 64-
75= 45&9 5L&:5"A5 495< 5"5B J 45 :5 =5?5"

45 A-:! --! 6595<;59;5 8<<J=&:59 45 &>4S
=<"B59: -7 9> =5:4&95<"B 45 5: 59" :=5: 6595 <==
<4-=&A:!<"B<-"A5B5C-5B -(<9 8<9!<"B J5"
8;-" 45<;;9-;9&<&-"-7 "9&?<"B -"5><=! -7 64&A4
7-9<A5" 89 45 4<B J55" 5"B5<C-89&">-5 ;-::5:S
:&-" 45 4<B 45&9-6" 69-">:<<4=&" <"B 5=:5S
64595 -95C5">5" <"B 645"5C59 45 %855" -7 A-:@
7<A &-" 6<" 5B ->&C5 9-8J=5 -">=<"B!<4&" 4<B
J8 -J5>&C5" -45 (<A -""5==:!<"B<4-8:<"B
-9 6--7 95B=5>>5B <5=: A9-::5B 45 "<99-6: 9&;-7
6<59 -45 &<"@: <8:56<! -=5"B 45&9:6-9B: -
45 P=: 59 4&57:! -9 -?<9<8B <"B ;=8"B59 -" 45&9
-6" <AA-8" 45 &" 597595"A5 -7 =&I<J5 4 &" 45
-6 -8" 9&5: 4<B A95< 5B <8"&C59:<< 5L;5A<&-" -7
6<9 9&:4<"B 9&:4 A-: 6595 <=&D5 :5 759?5" &">

J ' 45' 95Rb-9 :' 64&A4' 6595' A&9A8=< &">' 4<' 45' &"C<:&-"' -7' ">=<"B' 6<:' -' J5' < 5?; 5B' &"' 5<L?5:' <' =<: ' 45' :?<=-' ">=&:4' 7-9A5' &"' 45' &:=<"B' 6<:' 95B8A5B' J ' 45' B5S ?<"B' -7' ?5"' 7-9' =<"B59:" <"B' &"' 45' :8??59' -7' C <' 45' -""<8>4 ' 89D5:' 9-:5' &"' <9?:!' :48 ' 45?:5=C5:' 8;' &"' 45&&@ A<: =5:' <"B' &"' 45' &:=<"B:' -"' 45&9' =<D5:!' <"B' B5A=<95B' 45?:5=C5:' &"' 95J5=4-"' -"A5' ?-95

<99-' 4<B' 7-8"B' 45' A-??-"' 7-9 8"5' -7' 9&:4' 5;8 &5:" C& 4' 45' J5:' &" 5" &-":' 45' 4<B' B&:;=5<:5B' 5C59' -"5' 45' 9&:4' -8"A&-' 6<:' :;=&' &" -' 7<A &-":' 599-' 6<:' <' : 9<&>4 7-96<9B' :-=B&59!' C<&"!' ;<:&-"< 5!' "-' C59' 6&:5!' J8' <"L&-8:' -' B-' 64<' 6<:' 9&H4 " <"B' 45' 4<B' -' <A' 6& 4' ?5"' 64-' 6595' 5& 459!' =&D5' 9A4S J&:4-;' -7 8:!' :5=7$:55D&">' :A-8"B95=:' -9' 6595' =&"D5B' &"' <' 48"B95B' 6<' :' 6& 4' 9&:4' &" 595: :' 45"' 45' 6-8=B' "-' =5"B' 4&?:5=7' -' B&:4-"5:' ?<" I 8C95:!' 45' -8"A&-' 4<B' A9-::5B' <"B' 46<9 5B' 4&?' "' 95 89"' 45' 4<B' 6-9"' <' 45?' <"B' &":8= 5B' 45?!' <"B' W8<995==5B' 6& 4' 45?' <4!' >--B' <"B' J<B H

' 5;8 ' :-' A-"B& &-"5B' 6<:' &"' <"' &-=' :& 8< &-"' -' B5<-' 6& 4' <' 95J5==&-"' ?-95' ;<9 &A8=<9= ' <:' 45' 4<B' 7<==5"' -8' 6& 4' 45' 95:&B5"' -7' -""<8>4 !' &">4<?!' -"' 64-?' 45' &??5B&< 5' B8 ' -7' 95;95::&">' &' 6<:' 49-6"' 5' B&B' "-' J5=&5C5!' ;594<;:!' 4<' 4595' 6<:' B<">59' 5' --D' "-' :5;:' -' :5"B' <::&: <"A5!' <"B' <:' 45' ;8J=&AK' :59C&A5' 4<B' J55"' ;<95B' -' 45' J-"5!' <:' 5C5"' 45' :8;;=&5:' -7' <??8"&&-"' 4<B' J55"' A8' :4-9!' <"B' 4=-"5' <: =5' 6<:' 6& 4-8' ;-6B59!' &">4<?' 6<:' =--D&">' <"L&-8:=' <J-8' 4&?!' 645"' "56:' A<?5' 4<

K 0 7' <"' J-B' ;5&&-"' 4<' 4&:' A<8<5' ?<' 45' 45<9B' J57-95' 45' -8"A&=!' 45' 5;8 ' <": 659:' &"' <789 !' 4<' 5==5:' 4-8' ?5' -7' 45' -8"A&=i' 4<' <95' ' 7-9' 45' H -8"A&=' 45 '<<K5 <==' -7' 45?'48 <' :-9' -7' J5>><9:' <"B' :W8&445:!' ;8;;&5:!'B->:!'B8">4&=' A489=5:' 5<!' 5C5"' 45' ;9-8B5:' -7' 45?' A<?5' 4& 459' 6& 4' 45&9' 4-:5' ;< A45B' -"' 45&9' 455=:0< *6$+' $*' + 7 2' 5A' 1$*1!' *M32' =44' 8'()

P

*M32' 8>8:

6 , 4955 4-8:<"B A- :4<B=<"B5B< -8>4 - ,=5!, <"B
$$$$$$ 6595 -" 45&9 6< B-6" -R-&" 45 &":89>5" : &">$
5;5HJ59 <?489&&ABB<-"A5 -<=6< / &44&:-6" ?-"5 !
x7-9 6<>5:<"B<==-6<"A5:6595<:8:8<=J54&"B4<"B
45 J-8>4 8;<== 45 ;-6B59 &" 45 -6" <"B 45"!
6&4:8A4:A<" 7-9A5<:45 A-8=B:A9<;5 ->5 459! 42
65" -77<78==:;55B -=&>- -&" 59A5; 45 =&>4$
=<"B59:J57-95 45 A-8=B95<A4 -""<8>4 5 7-8"B
45?-" -8>4 &==5 "5<9 <I=5&C--B 45 E 6595 :-E
"8?59-8: 4<45 B&B" -C5" 895 -< <AD 45?5LS
A5;<<BC<" <>5 5 75==J<AD -==--" ! -45
J9&B>5 -C59 45 99-6!<"B=< &">6<& 4595 7&== 45
A<?5-"! 45 75==8;-" 45?'k<?&B"&>4<:45 6595
A9-::&"> 45 9&C59!<"B B9-C5 45?49-8>4 45 B<9DS
"5::&" - 45 J=<AD 955B ?5<B-6: -6<9B: <=4:<B<95
8 45 ;<::5B 45 99-6<<7-9B "5<9 45 :5<" &
6<:7&"5 5;5?J59 65< 459!<"B 45 A- :J5&">=&>4
-7 7-- !<"B 45 >9-8"B J5&">B9 <"B 7&9?! 45 :4;;5B
/ ;<: &">4<?' &" - (< - 45 4<B 95<A45B <==&"<
J57-95 45 D"56 64< 4<B J5A-?5 -7 45? 45
89D5: 6595 J8 65" ?&=5:B&: <"!<"B &7 45 6-
;<9 &5: 8"& 5B 45 64-=5 ;9-C&"A5 6-8=B ;9-J<J= J5
&" <7=<?5
;&&5<B&"> <95;-9 4< 45 6<:7<==&"> J<AD -
4=-"5 - 6<& 7-9 95&"7-9A5?5" :! &">4<?'7-==-65B
45?'J 7-9A5B ?<9A45:!<"B A<?5 8;'6& 4 45?'<><&"
645" 45 6595 =5<: =--D&"> 7-9 4&?!&" < : 9<>>=&">
A<?;-" 45 J<"D -7 45 (-! 6& 4 45 J9-<B B55;
9&C59 9-==&"> &" 79-" -7 45?
6<: 45 :<?5 ?&: ?-9"&"> -7 45 {<"B -7 5;S
5?J59 645" &9 4&=&;' &B"5 6<: 95A5&C&"> 4&: B5< 4K
6-8"B <T8 ;45" 45 A- :6595 7&C5 - -"5" J8
45 6595 A<8>4 8"<9?5B! 8";95;<95B! -9 :=55;&">
45 =--:5$-9B595B A=<":?5"! 4-65C59 7-9?&B<J=5 645"

' !7(' *6' 8!9': $.+F

45 ' 65" ' B5=&J59< 5= ' &" -' <A &-"' 6& 4' 45' ;&J9-A4
J=-6&">' <"B' 45' 6<9$A9 ' 9&">&">!' A-8=B' "- ' 9<== ' 79-?' $$$$$' 0
<' :89;9&:5!' <"B' 6595' =&D5' <' 7=-AD' -7' 7&&>4 5"5B' :455;!' :5; &=J59
56"' B-6"' 8"B59' 45' ">=&:4' :6-9B:!' 98"' 49-8>4'
6& 4' ">=&:4' =<"A5:!' 45' 4-9:5?5"' 6455=&">' 9-8"B'
45?!' 45 ' 6595' 7-9A5B' J<AD' &"' 45=;=5:' ?<::5:' 8;-"'
45' :5B> ' J<"D!' 64595' 45 ' 65&@5' 5& 459' D&==5B' <:' 45 '
: --B!' -9!' 7=&">&">' <6< ' 45&9' <9?:!' ;=8">5B' &" -' 45'
<59' -' J5' :4-' -9' B9-6"5B' 89&-8:= !' C59 ' 756'
A-8=B' :6&?' J-8 ' <' 48"B95B' 95<A45B' 45' 9<6=5 '
:4-95!' <"B' -7' 4-:5' 45' >95< 59' "8?J59' 7-8"B' 45' "- '
8"A-??-"' 7< 5' -7' 9&:4' : ?;< 4&:59:' <"B' 6595' ?89S
B595B' J ' 45' ;5<:<" :' &>4 ' -9' "&"5' 48"B95B' 6595'
D&==5B' &"' 45' ?5<B-6!' <"B' 45' 9-AD:' -"' 45' 9&C59@:' :&B5'
<J-C5' <"B' J5=-6!' <:' 45' &B5' 65" ' J<AD!' 6595' 79&">5B'
6& 4' 45' : 9<"B5B' J-B&5:' -7' 45' 95:

' 4&:' 95?5"B-8:' -C59 49-6' 45' =-">' 9-8J=5' 6& 4'
45' A-:' &"' 95=<"B' 6<:' J9-8>4 ' -' <"' 5"B' 45'
-""<8>4 ' &":8995A &-"' A-==<;:5B' 4D5' <' ;9&AD5B' <&9$'
J<P" <"B' :-' B55;' <"B' 5"B89&">' 6<:' 45' &?;95::&-"'
=57 ' 8;-"' 45' 9&:4' ?&"B!' 4<' 7-9' 4955' 5<9:' <'
=5<:!' <"B' 4-:5' 45' 5<9:' 645"' ;<&"' 6<:' -' ?<D5'
&:' =-">' 495< 5"5B' 577-9!' 95=<"B' 6<:' &"' ;9-7-8"B'
;5<A5'H

(' &">4<?' -' -7 8:!' 5; ' .F$' -?;<95' 45' =-">' <"B' ?&"8 5' <5$'
A ' F' -' 5" -"!' 5; ' .1$ A ' 1' A-8" '&"' -65

$

; / ' 45' A<8:5:' 64&A4' 4<B' ?<B5' =&I<J5 4' :-' 8"S

#

6&==&">' -'A-"C59 '459'&" 59;-:& &-"'&"' 45' 5 459=<"B:'

*M32

&" -' <' :59&-8:' 6<9!' 4<B' J55"' 45' J5=&57' 64&A4' :45' 4<B'
45=B' 79-?' 45' J5>&""&">' -7' 459' 95&>"!' 4<' 45' 95=&>&-8:'
W8<995=:' -7' 89-;5' 6-8=B' J5' 8=&?<5=' :5 =5B' JH' <
A-?;9-?&:5' 4<' 45' &">' -7' ;<&"' :4-8=B' J5' 6&==&">'
-' 95<' <' <==' 6& 4' <"' 5LA-??8"&A< 5B' -C595&>"' 6<:'
;9--7&"'& :5=7' 4<' 45' B&B' "-' 4-=B' 45' 5L 95?5' 45-9'
-7' 45' <;<=' ;959-><&C5'<"B' 4<' 45' :4-8=B' 4<C5' J-9"5'
&"' ;<&5"A5' -' :55' <"' ">=&:4' "-J=5?<"';=<A5B' <' 45'
45<B' -7' 4&:' 95C-= 5B' 9-C&"A5:!' 4&:' A-=-"&5:!';=8"B595B!'
<"B' 5C5"' #&>-!' <' -6"' -"' 45' :<A95B' :-&=-7' 45' 5"&"S
:8=<&:5=7!' :<AD5B' <"B':;-&=5B!' :4565B' 4<' 45' ?8:' J5'
5L 95?5=' 8"6&==&">' -' >-' -' 6<9' "' 9<"A5!' J5S
655"' 45' 5<>85' <"B' 45' 8>85"-:' 4595' 6<:' <
?&BB=5' ;<9' -7' A-"A&=&<&-"'=<9>59' 4<"' 5& 459!' 64-'
6595' <:4<?5B' -7' 45' :<&"' -7' ' <9 4-=-?56!' <"B'
6595' 4-"5:=' <"L&-8:' -' :<C5' 45&9' A-8" 9' 79-?' 45'
5"C5"-?5B' A-"7=&A' 64&A4' 495< 5"5B' &' C5"' 45'
-;5' 4&?:5=7!'&"' 4&:' B95<B' -7' ;<"&:4' <:A5"B<"A !' 6<:'
:<&B' -' J5'&"A=&"&">' -' ?-B59<&-"

4595' 6595' :&==' 6-' 78 895:' <;;<95"=' -;5"' -'
89-;5!'<"B'-"5'-7' 45?' "-' ?-95'=&D5=' 4<"' 45' -459'
45' 5:8&:@ 45-9' 6<:' 4<' "-' 59?:' :4-8=B' J5' ?<B5'
-9' -J:59C5B' 6& 4' 4595:' -9' :A4&:?' 4-:5' 64-' 4<B

<J<"B-"5B' 45' $A955B' -7' -?5!'<"B' 4-:5' 64-'4<B'7<==5"' -77' 79-?' & :' A-??8"&-"!Q H595' -' J5' A-59A5B' &" -' :8JS ?&::&-"' < ' 45' ;-&"'-7' 45$:6-9B' 7' 45:5' A-8":5=:' 6595' -'E;95C<&=!' 4595' 6<:' "- 4&">'=57'J8'<' 9- 5: <"' <==&<"A5' -' -;;-:5' 45?' 45' -6' -8" 9&5:' 6595' 45' -8 6-9D:'-7' ">=<"B!'<"B' 45' A45=B'6<:'<:' ?8A4' <"' ">=&:4' @&C59'<:' 45' 4<?5:' 8'&7' 45:5' A-8":5=:' 6595' "-' -' ;95C<&='&7' 45' <4-=&A'=<&' '6595'>9-6&">' 65<9' -7' 45' :98>>=5'&7' 45' ?&:59' -7' 49&: 5"B-?' 6<:' ;9-B8A&">' &"' <" 'A-":&B59<J=5' ?5<:895' <"' &"A=&"<S &-"' 7-9' <' ?-95' 5?;595B' ;-=&A !' 45"' 7-9' ">=<"B' -' 49-6'&:' :6-9B' &" -' 45' :A<=5' ?&>4' B5 59?&"5' 45' J<=<"A5' -'&??5B&<5'5C&=' -8=B' ;<&"!' C8="59<J=5' <:' :45' 4<B' J55"' ;9-C5B' -' J5' 49-8>4-8' 459' 5?;&95!' J5' J9-8>4' -' A-":5"' -' :-?5' &?;5975A' -=59<&-"!'5C5"' J8'7-9'<'756' 5<9:!' -'>&C5' &?5'7-9';<::&-"' -'A--=!' 45' ;5<A5' <' 64&A4' =&I<J5 4'6<:' <&?&">' ?&>4' J5' ;8:45B' -' <' 8"&C59:<=' :5 =5?5" "' <' 5"59<=' -8"A&=' ?&>4' <55' 8"B59' 4<;;&59' <8:;&A5:!' -' 8"B-' 45' 6-9D' -7' 95" "' <"B' 89-;5<"' 49&: &<"& ' J5' 95$5: <J=&:45B' -"' <' J9-<B59' J<:&:

"B' 4595' 6595' ?<" ' 95<:-":' 7-9' :8;;-:&">' 4<' 4&=&;' 6-8=B' "-' ;9-C5' &?;=<A<J=5' -6& 4: <"B&">' 4&:' >-=B' 7=55 :!' 45' 6<:' 7&"<"A&<==' 98&"5B' 45' :8AA5:S :&-"' W85: &-"' =<' &"' 45' 6<' -7' 45' &"C<:&-"' -7' ">=<"B!' <"B' &"' :-?5' 7-9?' -9' - 459' &' 6<:' <=?-:' A59 <&"' -' &"S C-=C5' 4&?' &"' 6<9' 6& 4' 9<"A5' (<" ' -7' 45' ">=&:4' <4-=&A:' 6595' 8"7<C-89<J=5' -' 45' ;59:-"<=';95 5":&-":' -"' 64&A4!' &7' 45' ?-C5B!' 45' 6<:' B5 59?&"5B' -' &":&:' ' <"B' 45' -;5!' 64&=5' 5W8<==' A-=B' -6<9B:' 4&=&;@:' A=<&?:' -"' 45' 95C59:&-"' -7' 45' 9-6"!' 6<:' &"B&:;-:5B' <=:-' -' ;<9' /6&4' ?-"5' <=:&">4<?' <"B' 89>4=`' : P=' J5=&5C5B' 4<' 45' ;9-J<J&=& &5:' 6595' 7-9' 6<9' 45' J5=&5C5B' <=:-!' ;594<;:!' 4<' <' A-?;9-?&:5!' &7' &' A<?5!' 6-8=B' J5

2) !#* 2 *6 (78'()T

" - =5: : 7< <= 4<" ;59:5A8 &-" - 5C59 4&">64&A4 45
&"B&C&B8<== ? - : C<=85B 5 &" 45 7<A5 -7 45&9 ?&:S
*M32 95: :@: - JR5A &-" : & 6<: 4<9B= ; - : :&J=5 - A<99 49-8>4
< B5 59?&"5B A-89:5 -7 <A &-" : :45 6<: &"A<;<J=5! <:
45 ;59A5&C5BR -7 A-"B8A &"> @<" ?< 59 -7 65&>4 !@
<"B :45 9578:5B - <==-6 459:5=7 - J5 >8&B5B 45
4<B J- 4 A-"A=8B5B! 45957-95! 4< ! B<">59-8: <: &
6<:! ;5<A5 ?&>4 J5 45 6&:5: A4-&A5 7-9 459_ ;5<A5!
4-65C59! &" 95<=& ! "- &" 6-9B <"B ;95 5"A5_ ;5<A5!
64&A4 < =5<: 7-9 < &?5 6-8=B >&C5 45 / 9-C&"A5: <
95: ;& 5 79-?C&-=5"A5! <"B ">=<"B :5A89& 79-?&"C<S
:&-" " - < ;5<A5 64&A4! <7 59 <756 5<9: -7 B&:4-"-89S
<J=5 W8&5 - ">=<"B! 64&=5 459 "< 89<= <==&5: 6595
B5: 9- 5B -" 45 -" &"`" ! 6-8=B 45 7-==-65B J <
795:4 98; 895 <"B < <4-=&A 95C--8&-"
! 45 B&77&A8= 6<: - D"-6 45 : <5 -7E 7554">-7
45 <4-=&A: >5"59<== _ -7 45 <4-=&A A-89 :<"B 45
<4-=&A =<& 49-8>4-8 89-;5 -=& &A&<" : <"B A-"S
: ;&9< -9: 4<B J5A-?5 : - :D&=78=& " 45 <9 : -7 7<=:54--B!
4< 45 95<= &" 5" &-" : -7 <" - "5 4<B J5A-?5 <== J8
&": A98 <J=5 - : <5:?<" =&C&">6<: J5 59 :59C5B J
: ;&5: 4<" <=:&">4<? 5 4<B A-995:;-"B5" : &" 45
-==5>5 -7 <9B&"<=: & :5=7 45 5:8& 7< 459: &" 45
95"A4 <"B -?<" :5?&"<9&5: 6595 ?<B5 45 B8;5: -7
45&9 --: :8AA5::78== 9<&"5B ;87&&=:! <"B ;95 5"B5B
">=&:4 A-"C59 :! <7 59 :< &"> ?<: : &" 45 A4<;5= <
45&?:! 6-8=B A&;459 - =&I<J5 4@: A<J&"5 45 :5A95 :!
: -7<9 <: 45 A-8=B =5<9" 45?! -7 45&9 :;&9& 8<= ;9&:-"$
4-8:5 4595==5:! 45 :5A95 <9 -7 45 95"A4 ?J<:S
:<B-9! 6<: J-8>4 - 6< A4 4&: ?<: 59 ;9&5: : 64-
6595 &$<C`==&">B&:>8&:5B &" ">=&:4 A-8" &5:! 6& 4 A95S
B5" &<=: 79-? ==5" <"B <9:-":! 6595 <=:&">4<?@H

E @kH5" 5"B: d ?-" >9<"B 95>95 A<8:5 B5 &58 5 &= <B5: <9BKE
B5: ?<8 < : J98& : B@<8A8": ;9a: B5 "<8=L 5" <:AJ5I@< = ' 2 4$+' !
C-: 95 <"A & `! W85 =@-" B& 95A5C-&9 $ R*B -C .F! *M32 ;7 E
><:>5 B5 A5: 5: n ; -g£9 9<4&9 =< C-= C&

&": 98?5" :!' <"B' A-??8"&A< 5B' -' 4&?' <==' 4<' 45' A-8=B' =5<9"' 8"B59' 45' :5<=' -7' A-"75::&-" H' C59' < 4-S =&A' 7<?&=' &"' ">=<"B' 6<:' 48:' 8"B59' :89C5&==<"A5' 45' 64595<J-8 :' -7' 5C59' :5?&"<&' ;9&5:' 6<:' D"-6"' 45' ?5<":' J' 64&A4' 45' 5" 5&@5B' ">=<"B"' 45' 79&5"B:' 64-' B5A5&C5B' 475?' 45' A-"C59 :' 64-?' 45' 95A-C595B' -' 45' 489A4' 45' E578>55:' -"' 45' -" &"5"' 6595' 6< A45B' 6& 4' 5W8<=' A<95!' 45&9' =5 59:' A-;&5B!' 45&9' 64&:;595B' A-"C59:< &-":' A<8>4' <"B' 95;-9 5B' 5' 45' <AA-8" :' 6595' A-" 9<B&A -9 !' <"B' "-' A59 <&"' A-"A=8:&-":' A-8=B' J5' B9<6"' 79-?' 45?' 45' E;9- 5A &-"' 64&A4' =&I<J5 4!' 4<B' :-' =-">' 95A5&C5B' 79-?' 45' R5<=-8:&5:' J5S 655"' 9<"A5' <"B' ;<&"' 6<:' 5"4<"A5B' J' <"<=->-8:' B&77595"A5:' <?-">' 459' -HC"' < 4-=&A' :8JR5A :' 4&=&;!' 6& 4' <==' 4&:' A<95!' 4<B' "-' J55"' <J=5' -' D55;' 4&:' C&56:' P;-"' 45' :8AA5::&-"' <' :5A95' 45' < 4-=&A' ">=&:4' <9&: -A9<A' 4<B' <=6< :' J55"' 45' <BC-A< 5:' -7' 45' A- A4' & =5' 45E8"&-"' -7' 45' A9-6":' 4<B' J55"' 45' 65&>4 &5:' -7' 45&9' ;-=& &A<=' <9>8?5" :' 45' "-6' 7-8"B' 45?S :5=C5:' A<==5B' -"' -' :<A9&7&A5' 45&9' A-8" 9' -' <"' 5L 95?5' A-": 98A &-"' -7' 45&9' 95=&>&-8:' -J=&>< &-":!' <"B' 45' 595' B&: 9<A 5B' <"BE' A-"78:5B' 45' 5:8& :' 6595' 8"&S C59:<==' 7-9' ;<&"' ==5"' <"B' <9:-":' D"56' "-' "< &-"' J8' 45' 489A4!' 45' <9>85B' 6& 4' 4&=&;!' 4<' 5C5"' &7' <?5:' A-":5" 57B' -' J5' 95A-"A&=5B!' "-' B5;5"B5"A5' A-8=B' J5' ;=<A5B'E P;-"' <"' &" 595: 5B' A-"C59:&-"' 45' ?8:' < 4-=&A' &">!' A=<&?&">' B5:A5"' 79-?' -4"' -7' <8" !' 4<B' <=95<B' ;"A5' J55"' 45&9' & 8=<9' -C595&>"!' <"B' <' 4&:' A-?&">' -' ">=<"B' <:' 48:J<"B' -'%855"' (<9' J<B' J9-8>4' 6& 4' 4&?' 45&9' 7&9:' 95A-"A&=&< &-"' 45

K@' ' "@' '<' -==5>5' B5' `:8& 5:' "&' d' -?5' "&' 5"' 9<"A5' -c' &=:' "@5"' 9-8C5"' W8&' B&:5"' -8:'=5:'R-89:'=<' ?5::5' ;-89' :5' A-8C9&9' 5' ?&58=L':59S C&9' d' A5: 5' ;9&"A5::5' (5:?5' &=' '< = 5<8A-8;' B5' ;9y 95:' 5"' ">=5 5995 -=`9`:' ;<9' 5==5' ;-89' ;-8C-&9' ;<9' ' ?-R5"' B5:' A-"75::&-":' <89&A9&=<&95:' B5:A-8C9&9' =5:' ?5"`5:' B5:' @ < 4-S =&W85: 1% ' ' ' ' * 2 2' 3 / --'C-=' C&

*M32

#

*M32

95=&5B -"4&?7-9<:5A-"B<"B7&"<-"5 45 &C&:45B -:55 45 ;9-8B ">=&:4 95J5==&-8:: ;&9& A98:45B (45 B5:&95B 45 ;<"&<9B:-J5 A "W859-9:! <"B (-K=&C5$8"B59 45&9:8JR5A &-" @H

4-:5! -" 45 - 459 4<"B! 64-A-8=B "- 7-9>5 &" 45&9 A955B 45&9 =- <= -45 A-8" 9 64&A4 ><Ca 45?J&9 4! :-B95<B5B<7-95&>" A-"W859-9! 4< 45 J5><" <=:-B95<B 4&: <::&: <"A5 ">=&:4 C-&A5: 6595 45<9B :< &"> &" -9"5! 4< 45 %855" 6-8=B J5 -=5S 9<" &7:45 6595 8";9-C-D5B! 4< 45 64-=5 ;-=&A -7 45 5:8& :6<: <J=8"B59! <"B 4< ">=&:4 >5" =5?5"! 64< 5C59 45&9 A955B! 6-8=B "5C59 6&==&">= J5A-?5 :8JR5A -<: 9<">59! -9! &7 45 A-8=B 45=;& ! <==-6 4&: ;95:5"A5 <?-"> 45? H 45 ">=&:4 <4-=&A:! <: < J-B ! 4<B >&C5" =&I<J5 4 "-95<:-" -A-?;=<&" -7 45? 4-8>4 4955$W8<9 59:-7 45 "<&W"K 45 4<B 5"B895B 45 ;9-:A9&; &-" -7 45&9 A955B 45 4<B :8JS ?& 5B -?<D5 ;9-75::&-":64&A4 45 B&:<;;9-C5B! -9 45 4<B ;<&B 7-9 "-"A-"7-9?& J 5C595 7&"5: <"B J 5LA=8:&-" 79-?45 ;8J=&A:59C&A5 45 4<B :55" 45&9 :;&9& 8<D"&>4 :$599<" 79-?45 :5?&"<9&5:&?S ;9&:-"5B! 9<AD5B! <"B B &"> 9<& -9:@B5< 4:! <"B 45 4<B "-95J5==5B 45 4<B 9578:5B! 6& 4 <756 ;<:S :&-"< 5 5LA5; &-":! -:<A9&7&A5 45&9 A-8" 9 -45&9 95=&>&-" <"B 45 4<B ;9-C5B < -"A5 4< 45 6595 "- 45 B8;5:-7 <6&=B 7<"< &A&:?! <"B 4< 45 A-8=B "- <"B -8>4 "- -J5 ;59?<"5" = B&:<J=5B 79-?<C-&A5 &" 45 <B?&"&:9< &-" -7 45 A-8" 9 " 45 - 459 4<"B! 4595 6595 ?<" B5:;59< 5 <"B B<">59-8: ?5"

K <A &-":<?-"> 45 ">=&:4?5" &" 45 &" >-7 ;<&"@: :59C&A5! -9 95:&B5" &" -?5 -9 9<"A5! 8> *M3, "B-9:5B 5A95 " 5==&>5"A5 _ $ % .: (W8@&=: "5 &5" :5&"> B@8:59

B@<9?5: B@<8= 95:! W8@&=I "5 C58=5" 5 "5 ;59?5 9-" W85 =@5: 9<">57 5" 95 5" ">=5 5995@_ -3 4) 5 / -+

<?-"> 45?_ 4-6'?<" '&'6<:'&?;-::&J=5' -':< ' 45'
H: 59A&5:'<"B' 45' -6<9B:'6595'B55;='A-??& 5B' <=7$'
'7 $B-I5"' "-J=5?5"'<'='5<:'4<B'A-"A59 5B'<'9&:&">'&"'A-"S *M32
"5A &-"'6& 4' 45' 8D5'-7' 8&:5!'<"B'-459:'6595':8;;%:5B'
-'J5' 6& 4&"' 45'95<A4'-7' 5?;<&-"' -'B5A=<95'-"' 45'
:<?5':&B5' 7';5<A5'4595'6<:'-'J5!'<'95<='95A-"A&=&<&-"'
J5 655"' =&I<J5 4'<"B' 45'%855"'-7' A-:'?8:'7-99t'<'
"5A5::<9'';<9'-7'&' -'<;59:-"'-7' 4I<J5 4@:' 5?S
;59<?5" !' -'64-?' 45' 9-5:<"'A955B'6<:'<:'4 =5'
985'<:' 45' <4-=&A!'64-'4<B'<'=<&8B&"<9&<"'A-" 5?;'
7-9' 45-=->&A<=' B->?<&:?!' 64-' J545C5B' &"' ?<59&<='
;9-:;59& !' <"B' -9B59' <"B' =<6' <"B' A-??-"' :5":5!' <'
?-B59<5':5 =5?5"'-7'459'-6"'<"B' 89-;5@:'B&77&A8=&5:'
?8:'4<C5'J55"'&"7&"&5='5?;&">' (<9' 8<9';9-S
?&:5B' &"' 6-9B:' 5C59 4&">' 64&A4' 5C5"' H=:&">4<?'
A-8=B'<:D!'J8' 45';-::&J&4 '-7'A-"A=8B&">'6&74'459'B5S
;5"B5B'-"' 45' &""59';89;-:5'-7'459:5=7!'-7'459'79&5"B:!'
-7'459':-"!'-7' 4&4;'<"B'-7' 45' -;5' 7' 45'%855"'-7'
A-:'6<:':&==' 95<A459-8:!'&7' 45' ">=&:4' <4-4A:'6595'
&5=B&">'<7 59'<==' -' 5:8&'&"7=85"A5!'&7' 45' 5<>85'6<:'
-'J5A-?5'B-?&"<"'&"' 9<"A5!'<"B'&7' 4&=&;@:';95:5"'
6&=4">"5::'7-9';5<A5'6<:'-"='<'?<:D!'-'49-6' =&I<S
J5 4'-&'459'>8<9B!' 45"' -'95=5<:5'459';9&:-"59!' -'7-9A5'
45' -6' -8" 9&5:'&" -'<95<!' -'?<D5'<"'A-"A5:S
:&-"!'5C5"' 45'=&>4 5:!'6<:' -'B&:<9?'&"' 45';95:5"A5'-7'
45'5"5?

45'5C&B5"A5'-"' 45' 6-':&B5:'6<:':-'"5<9='5W8<=!'
4<'&'6<:'4<9B' -'B5A&B5' 7'-"5':5A95'=5 59':;-D5'
-7' 45' <4-=&A:'<:'B&C&B5B!' -459:'95;-9 5B' 45?'<:'
45<9&='8"<"&?-8:' 45' %855"@:' -6"' -8"A&-' 6<:'
!:;=&'=&D5' 45'A-8" 9!'<"B':45'459:5=7'<'C<9&<"A5'E6& 4'
459:5=7' -':8J=5'6<:' 89-;5<"'B&;=-?<A!' 4<' 45'
?-:' 98:5B'<>5":'?&>4'J5':5A95'9<&-9:K!' 45'?-:'
E:55?&">='5L<A'&"7-9?<&-"'A-"9&C5B'-"='-'B5A5&C5

Q' ' !

- -"5 6<: ?-95 A-":A&-8: - 4&: 4<" <=:&">4<?!
<"B 45 75= & & ?;59< &C5= "5A5::<9 - -J <&" A=85 -
*M32 45 <4-=&A :5A95 : -" 64&A4 45 D"56 4< 45 A-8=B
B5;5"B A- =<"B 6<: 45 -;5" >< 5 7-9 45 &"C<B59
- 5" 59 &" - ">=<"B 45 9- 5: <" =-9B: 4<B
J55" 95: -95B 45 &"> :;-D5 7<&9 5 ;9-75::5B
- J5 :-8"B &" 95=&>&-" 5 :<&B 4< 45 6<: B&C&B5B
79- ? 4&: ?- 459 8 4595 6<: "- <9= - (899< &"
A- =<"B "-6 64- 4<B J55" "5C59 D"- C" - =&5 -
(899< ! "- 5C5" < (-9 -" 45 A- A4 :<5:?5"
6595 - 45 :A4--= - (<& =<"B - 5 4&"> -"!<"B <?5:
4&?:5=7 6<: 45 <; 5: - 4&: ;8;&=: 4595 6595 4-:5
64- :<&B 4< 45 6<: < <4-=&A < 45<9 ! <"B 4<
645" 45 &?5 - <A &-" A<?5 45 6-8=B J5 < 45 B&:;-S
:& &-" : &== - 4&: A-8:&" - 8&:5 4< 6<: <?5:<
45<9 i 4< 6<: (<9 8<9 i 4< 6595 45 ">S
=&:4 <4-=&A:i 4< 6<: 45 #<=-&: &"> < <9&:!-"
64-:5 <&B &" 45 B< - ;59&= =&I<J5 4 - 8 59= 95=&5B i
4< 6595 45 95<= &" 5" &-": - 459 J9- 459$&"$=<6 -
;<&" i 9-<B= ! &7:45 ?<B5 ;5<A5 &" 45 5 459=<"B:!
6<: 4595 -9 6<: 4595 "- - J5 =&J59 - A-":A&5"A5
&" 89-;5_ H=&J59 - A-":A&5"A5!&7 "- - 6-9:4&;i -9
6<: ">=<"B - J5 &"C<B5B <7 59 <== &" 45 &" 595: -
45 %855" - A- :<"B 45 -;5i

4595 6<: -"5 6< !<"B ;594<;:-"= -"5! J 64&A4 <==
45:5 W85: &-": A-8=B J5 <":6595B H 45 %855" - A- :
?8: J5 <><&" 5"<J=5B - -;5" < A-995:;-"B5"A5 64&A4
:45 <"B 459 79&5"B: A-8=B J5=&5C5 - J5 ;5975A = :<75!
0<"B 459 =5 59: <"B 45&9: ?8: J5 ;<::5B 49-8>4 45
4<"B: - <=:&">4<? -8"B 459 :-=-"> <: :45 =&C5B!
A-":;&9<A 645 459 89-;5<" - ">=&:4 "5A5::<9&=
>< 4595B - 4&"> 4<B J55" B-"5 &" 45 ;<:!<"B
"- 4&"> 4<B J55" ;9-R5A 5B!-" 64&A4 459 <BC&A5 4<B
"- J55" 7&9: <:D5B <"B <D5" 45 4<B <>5" : <
5C59 -89 ! 64- --D ;<&": 4< < =5<: - 459 5C59j

7&J95' -7' 45' 98 4' :4-8=B' J5' D"-6"' -=& &A<=' A-995S :;-"B5"A5' 49-8>4-8' 459' 95:&B5"A5' &"' ">=<"B' 4<B' J55"' 45' -AA8;<&-"' -7'459'=&75' -'=-">'<:' :45'95:&B5B' 6& 4' -9B' 4956:J89' 459' :59C<" :' 4<B' J55"' 8"B59' =---:5' :89C5&==<"A5' 45' 6<=D5B'<"B'9-B5'64595' 45' ;=5<:5B' 45' C&:& 5B' 45&9' "5&>4J-89:' <"B' 95A5&C5B' C&:& :' &"' 95 89"' -4' 45' <"B' 45&9' ?&: 95::' 95W8&95B' 45&9' 6<9B9-J5:' -' J5' 95;=5"&:45B!' 45&9' =&J9<9&5:' -' J5' :8;;=&5B' 6& 4' 795:4' C-=8?5:' 79-?' -"B-"' <"B' <&&:' 8L89&5:' <"B' "5A5::<9&5:' A<?5' A-" &"8<==' -' 457S 7&5=B!'<"B' :-?5&?5:' =5 59:' 6595' &"A=-:5B' &"' 45' 79<?5:' -7' 45' J-L5:!' -9' A-"A5<=5B' J5"5< 4' 45'=&"&">':' -9' J5 655"' 45' ;=<"D:' -?5&?5:'<':?<=' 9-=' -7' ;<;59' 6<:' :56"' &" -' 45' 4-=-65B' 455=' -7'<"56':4-5' -9' J--' -?5S &?5:'<':5' -7' 4<"BD59A4&57:' 79-?' 45' ?&=&"59' 6-8=B' J5' 069& 5"' -C59' 6& 4' &"C&:&J=5' &"D!' -9' <><&"!' A&;459:' &" 5=&>&J=5' -' 459:5=7' -9' 459' :5A95 <9' 6595' "-5B' -"' 45' ?<9>&":' -7"56' J--D:

"' 459' 95?-C<=' -' 8 J89' <"B' 45' A4<">5' -7' >8<9S B&<":' <=' 4&:' 6<:'<'<"' 5"B' <8=5' 4&?:5=7!'<' 9&?B' 89& <"!' 7&=5B' 4&:' 4-8:54-=B' 6& 4' :59C<" :' 64-:5' 7<& 4' k <' ;9--7' <><&":' A-998;&-"' -' -"5' -7' 459' ;5-;=5' <:' <=-65B' -'=5<C5' 45' A<:=5' 6& 4-8'<':-=B&59'&"'A=-:5' <5"B<"A5' 45' A-<A4?<"' 64-' 5L59A&:5B' 459' 4-9:5:!' 45' <=?-"59' 64-' B&:9&J8 5B' 459' A4<9& &5:' <?-">' 45' ;--9!' &"' C<&"' <5?;5B' -' 5C<B5$' <8=5@:' :A98&"' -4&">'-7'<"'D&"B'95<A45B'4&:';9&:-"59@:' 4<"B:' 64&A4' 4<B' "-' J55"' :5<9A45B' 6& 4'<"'&">5"8&' 64&A4'=57'"-' A4<"A5' -7' A-"A5<=?5"' 45' 6<:';59?& 5B' -' :5"B' =5 59:';5"=' 49-8>4' 45' 95"A4' ?J<::<B-9!'J8' 45' 595'=&<J=5'<=6<:' -' J5' 5L<?&"5B'"<"B' 5LA5;' 49-8>4' 4&:'8":<&:7<A-9'A4<"5=':45' 6<:'A8' -77'79-?'<=' A-?S ?8"&A<&-"' 6& 4' 45' -8 59' 6-9=B

' 6<:' A59 <&"' 4<' :45' 6-8=B' A4<75' 8"B59' 45' 95$

: 9<&4 ! 4< < "L&5 < "B 45 6 <" - 7 459 8:8<= -AA8;<S
&-" 6-8=B 95"B59 459 A-"7&"5"<5" 8"5"B89<J=5 - 459!
*M32 <"B 4< &7 <" <C5"85 A-8=B 45 -;5"5B 7-9 459 - 64&A4
:45 4-8>4 :45 A-8=B 98: ! J- 4 :45 <"B 459 A-995S
:;-"B5" : 6-8=B &": <" = <"B 5<>59= <C<&= 45?:5=C5:
-7 & 5=&A< 5 A-" 9&C<"A5 6<: "5A5::<9 6-8=B
J5 8":<75 - <B?& 45 A<: =5 -77&A59: &" - 45 :5A95 !
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&"85!<"B J5 &" :-?5 6< 5C<B5B 59 -6":8:;&A&-":!
<=:-! 6-8=B J5 5LA& 5B &7 <AA5:: - 459 6<: :8BB5"= ?<B5
5<: "5 =5 59 -9 -"5 ;<AD5 6-8=B "- J5 5"-8>4
/##4< <=:&">4<?6<" 5B 6<: < :8: <&"5B! C<&&&5B A-9S
95:;-"B5"A5 6& 4 ?<" ;59:-":! ;&@- 9<A 5B 7-9 <" &"S
B57&"& 5 &?5_ 6& 4 45 -;5! 6& 4 4&=&;! 6& 4 459 :-"!
6& 4 45 9A4J&:4-; -7 =<:>-6! 6& 4 8&:5! (5"B-I<!
<"B 45 ">=&:4 9578>55: "; -::5::&-" -7 4&:I 45 A-8=B
5& 459 A-"C&"A5 4&: ?&: 95::-7 459 -6" 8"6&:B-?! -9 :<S
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B&77&A8= -"5 5 ?8: 7&"B :-?5 -"5 64- A-8=B -J <&"
45 A-"7&B5"A5 -7 <== 45:5 ;59:-":! <"B &"B8A5 45?
98: 4&?6& 4 45&9 =5 59: 5 ?8: &" :-?5 6< -9
- 459 5"<J=5 4&: ;59:-" - A-"C5 45 =5 59: - 45
%855" -7 45 A- : <"B A-"C5 J<AD 459 <":659: 5
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;59?&::&-" 45 ><C5& ! <"B :45 D5; 45 :5A95 - 459S
:5=7 6<: &?;-::&J=5 - :< 64< : 9<">5 95C5=< &-":
?&>4 =&5 J57-95 459 -9 <== :45 A-8=B 5==! 7-9 <==
<=:&">4<?A-8=B 5==! 4<=7 459 <J&"5 ?&>4 J5 7-8"B
;9&C< 5= &" 45 %855" -7 A- : &" 595: (<9 8<9
6<: 45 "5L & ?? 5B&< 5 45&9 - 45 A9-6" =&I<J5 4
4<B 9578:5B - <==-6 459 - J5 B&:&"459& 5B <"B ">=&:4
;8J=&A ?5" 6595 J8 ?-9 <! <"B ?&>4 4<C5 4-8>4 &
J8 A-??-" ;98B5"A5 - ?<D5 45&9 ;5<A5 &" &?5

45' A4&57'&" : 98?5" ' 4<B' 7&9 : ' -' 45'7-8"B ' <=:&">$' F
4<?' 4<:' "- ' =57 ' -"' 95A-9B' ?-95' -7' 45' 9<":<A &-"' 4<"'
<:' "5A5: :<9 ' ' &:' ; - : :&J=5' 4< ' 45' ;=- ' 64&A4' 45' :5 ' *M32
-"' 7-- ' 6<:' :8>>5: 5B' J ' 45' ;59:-"' 64-' 8"B59 --D'
-' 5L5A8 5'&

4595' 6<:'&"' <77-9B:4&95!' < 7<?&= ' -7' :-?5' : <"B&">'
"<?5B' &77-9B ' 45 ' 6595' 95=< 5B' -' 45' 49->?-9 -":'
<"B' - 459' -7' 45' >95< ' A-8" 9 ' 4-8:5: ' 45 ' 6595' 8"S
A-?;9-?&:&">' < 4--&A:" <"B' 45' 7< 459!' -4"' &77-9B!'
7-9' A-" &"85B' 95A8:<"A '4<B' J55"' :5" ' 7-9' -' -"B-"' <"B'
&?;9&:-"5B H' 7' 4&:' 4955' :-":!' -"5' 6<:'&"' 45' %855"@:'
>8<9B' -"' :59C&A5' &"' 45' <=<A5!' 45' 6-' - 459:' 6595'
5:8& :'&"' 45' :5?&"<9 ' < ' 45&?: ' 45' 5=B59' -7' 45:5!'
5-9>5!' A<==5B' -A -9' &77-9B!' 6<:' @' < ;9&5: ' <"B' 95<B59'
@' -7' B&C&"& ' 4595 @ 5&">' <' ?<"' <7 59' ==5"@:' 45<9 !'
<"B' :< 89< 5B' 6& 4' 45' >5"&8:' -7' 45' ;=<A5!' 45' 95;95S
:5" 5B' 45' :;&9& ' -7' 4&:' -9B59' &"' & :' ?-: ' B5 5: <J=5'
:4<;5' 5' 6<:' <?-">' 4-:5' 64-!' 6& 4-8 ' 45' A-89<>5'
-' < 5?; ' 45' B55B' 45?:5=C5:!' 6595' <"L&-8:' 4< ' :-?5'
-"5' 5=:5' :4-8=B' ?89B59' 45' %855"!' <"B' 45' 9&"A5' -7'
<9?<!' &"' 45' 5L;5A < &-"' ;9-J<J= ' 4< ' 45' 6-8=B

K 45' k 6-9B ;9&:-"' <:' <; ;=&5B' -' B<8>4 59:' -' &9' -4"' 98"B5=!'
75A8:<" :' ?8: ' "- $J5'&?B59: --B' -' 45' 4&&&B' 45' B<8>4 59' -9' 6&75' -7'
&?;= ' <' B8">5-"!' -9' <" ' C59 ' 8"S -"5' (9' 5A45 ' 4595' 6595' <=:-'
J5<9<J=5' 95: 9<&" ' 9<"A&:' (&==:!' -"5' 9-6"!' <' A& &I5"!' <"B' -"5' (9'
-"5' -7' <=:&">J<?@:' :5A95 <9&5:!' (--95!' 6& 4'-459:' ' 6<:' (<>B<S
48:'&"A&B5" <== 'B5:A9&J5:' 45'A-"B&S =5"' B< !' 5"B' 45' ;9&5: ' A< 5A4&:5B'
&-"' -7' <' ;9&5: 'A-"7&"5B'&"' 45' (<9$ 45' A-?;<" ' 6& 4' 45' B-A 9&"5' -7'
:4<=:5< _ ;-;&:4' 95;5" <"A5!' <D&">' 7-9' 4&:'

@' ' 6<:' 6& 4' ?5'=<: ' "&>4 !' <"B' 45?5' 45' B<8>4 59:' -' &9' -4"' 98"B5=!'
5==:' ?5'45'6<:' 5: 59B< '&"C& 5B'7-9' 45' 4&&&B' 45' B<8>4 59' -9' 6&75' -7'
4&:' 7<9565=' -' <' J<"W85 ' &"' 45' -"5' (9' 5A45 ' 4595' 6595' <=:-'
A4<?J59' -7' &: 59!' 45' ;9&5: '&"' 45' -"5' 9-6"!' <' A& &I5"!' <"B' -"5' (9'
(<9:4<=:5<!' 64595' <?-">' - 459' (--95!' 6& 4'-459:' ' 6<:' (<>B<S
>85: :' 6595' 4955'>5" =56-?5"' C59 ' =:&">J<?@:' :5A95 <9&5:!' 48:'&"A&B5"
J9<C5' &"' 45&9' < &95!' 6-' -7' 45? <== 'B5:A9&J5:' 45'A-"B&S &-"' -7' <' ;9&5: 'A-"7&"5B'&"' 45' (<9$
:4<=:5< _

@' ' 6<:' 6& 4' ?5'=<: ' "&>4 !' <"B' 45?5' 45' B<8>4 59:' -' &9' -4"' 98"B5=!'
5==:' ?5'45'6<:' 5: 59B< '&"C& 5B'7-9' 45' 4&&&B' 45' B<8>4 59' -9' 6&75' -7'
4&:' 7<9565=' -' <' J<"W85 ' &"' 45' -"5' (9' 5A45 ' 4595' 6595' <=:-'
A4<?J59' -7' &: 59!' 45' ;9&5: '&"' 45' -"5' 9-6"!' <' A& &I5"!' <"B' -"5' (9'
(<9:4<=:5<!' 64595' <?-">' - 459' (--95!' 6& 4'-459:' ' 6<:' (<>B<S
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J9<C5' &"' 45&9' < &95!' 6-' -7' 45? <== 'B5:A9&J5:' 45'A-"B&S &-"' -7' <' ;9&5: 'A-"7&"5B'&"' 45' (<9$
:4<=:5< _

@' ' 6<:' 6& 4' ?5'=<: ' "&>4 !' <"B' 45?5' 45' B<8>4 59:' -' &9' -4"' 98"B5=!'
5==:' ?5'45'6<:' 5: 59B< '&"C& 5B'7-9' 45' 4&&&B' 45' B<8>4 59' -9' 6&75' -7'
4&:' 7<9565=' -' <' J<"W85 ' &"' 45' -"5' (9' 5A45 ' 4595' 6595' <=:-'
A4<?J59' -7' &: 59!' 45' ;9&5: '&"' 45' -"5' 9-6"!' <' A& &I5"!' <"B' -"5' (9'
(<9:4<=:5<!' 64595' <?-">' - 459' (--95!' 6& 4'-459:' ' 6<:' (<>B<S
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J9<C5' &"' 45&9' < &95!' 6-' -7' 45? <== 'B5:A9&J5:' 45'A-"B&S &-"' -7' <' ;9&5: 'A-"7&"5B'&"' 45' (<9$
:4<=:5< _

@' ' 6<:' 6& 4' ?5'=<: ' "&>4 !' <"B' 45?5' 45' B<8>4 59:' -' &9' -4"' 98"B5=!'
5==:' ?5'45'6<:' 5: 59B< '&"C& 5B'7-9' 45' 4&&&B' 45' B<8>4 59' -9' 6&75' -7'
4&:' 7<9565=' -' <' J<"W85 ' &"' 45' -"5' (9' 5A45 ' 4595' 6595' <=:-'
A4<?J59' -7' &: 59!' 45' ;9&5: '&"' 45' -"5' 9-6"!' <' A& &I5"!' <"B' -"5' (9'
(<9:4<=:5<!' 64595' <?-">' - 459' (--95!' 6& 4'-459:' ' 6<:' (<>B<S
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J9<C5' &"' 45&9' < &95!' 6-' -7' 45? <== 'B5:A9&J5:' 45'A-"B&S &-"' -7' <' ;9&5: 'A-"7&"5B'&"' 45' (<9$
:4<=:5< _

@' ' 6<:' 6& 4' ?5'=<: ' "&>4 !' <"B' 45?5' 45' B<8>4 59:' -' &9' -4"' 98"B5=!'
5==:' ?5'45'6<:' 5: 59B< '&"C& 5B'7-9' 45' 4&&&B' 45' B<8>4 59' -9' 6&75' -7'
4&:' 7<9565=' -' <' J<"W85 ' &"' 45' -"5' (9' 5A45 ' 4595' 6595' <=:-'
A4<?J59' -7' &: 59!' 45' ;9&5: '&"' 45' -"5' 9-6"!' <' A& &I5"!' <"B' -"5' (9'
(<9:4<=:5<!' 64595' <?-">' - 459' (--95!' 6& 4'-459:' ' 6<:' (<>B<S
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J9<C5' &"' 45&9' < &95!' 6-' -7' 45? <== 'B5:A9&J5:' 45'A-"B&S &-"' -7' <' ;9&5: 'A-"7&"5B'&"' 45' (<9$
:4<=:5< _

&"B8A5 4&: J9- 459 - <A &" & ! ><C5 4&? ? -"5 - >5 45 <: :<: : ?< &-" <AA- ? ;=&:45B H

R'M3 2 " &=J59 ! 45 -8">5: -7 45 7<?&= ! 45 5:8& 9<&"&"> ;9-B8A5B <A4<9<A 59 -7 < B&77595" ;5 5 6<: <D5"79- ? ">=<"B 645"45 6<: 5=5C5" 5<9: -=B! <"B 45 9B59 45957-95 4<B 4&?5" &95= - 45?:5=C5:! - :4<;5 7-9 >--B -9 5C&= " <>5 45 6<: J 4&: &?5 <J-8 65" $7&C5! <"B =--D&"> -8">59! 6& 4 < :?-- 4 J5<9B=5::7<A5 5 4<B J55"-9B<&"5B B5<A-" <"B 4<B J55"95<B59 -7 ;4&=-:-;4 < 45 :5?&"<9 J8 J5&"> <>--B =&">8&: 45 4<B 9<C5==5B -" 45 J8:&"5::-7 45 9B59! <"B < <9&: 45 4<B ?<B5 <AW8<&" <"A5 6& 4 (-9><" &" 45 <: &=5! 6& 4 4<9=5: <>5 ! 4&: A-8:&" 49->?-9 -"! <"B 45 9A4J&:4-;-7 =<:>-6 <C&"> J55" < <=< 59 ;59&-B -7 4&: =&75 B&:A-C595B &" < J9- 45=! 45 ;594<;:7-9?5B - 459 A-""5L&-":<=:- 4595 -7 < 5 =5::95;8 <J=5 D&"B! <"B 5& 459 <: <" 5775!AR -7 =--:5"5:: -7 =&75! -9 79- ?&"4595" :A-8"B95=B-?-7 5?;59<?5" ! 45 -77595B 4&: :59C&A5: <"B 45 -;;-9 8"& &5: < 4&: A-?S ?<"B - 745 ">4:4 -C59"?5" " 45 :;9&"> -7 C C 45 6<: A-??8"&A< &"> &" < 5" < &C5 ?<""59 6& 4 &9 B6<9B <77-9B! 45 ">=&:4 ?J<::<B-9 H =& =5 <7 59 65 7&"B 4&?5">5B 6& 4 <=:&">4<? -7<9 <: ;-::5:&"> 45 A-"7&B5"A5 -7 45 8=9<$ < 4-$ =&5: 45 6<: 5C59 4&"> 4<6<: -J5 B5:&95B &:7< 459 6<: < A-"75::-9 "5 -7 4&: J9- 459: 6<: 45 A-"7&B<"

K Qws 9 5-9>5 &77-9B 6<: ;9<A &:5B J <9?< - D&= 459 (<R5: ! <"B 4<B 95A5&C5B - 4< < 5?; 5&>4 -9 "&"5 48"B95B ;-8"B: C< *(6 !*(' *6 *8 2 8> 3 !* M'3'2 =44 (4) ! / ' + .

Q -A -9 &77-9B! ;&&5: <"B 95<B59 -7 B&C&"& &" 45 ">=&:4 :5?&"<9 < 45&?:! B&B :-=&A ?5 - 4<C5 :=<&" 45 %855"Q: (<R5: ! -9 45 <9= -7 5&A5: 59! 64&A4 <A 4- <77&9?: - J5 -7 >&&5< ?59& ! <"B 45 -"= ?5<": - 957-9? 45 < 5! <"B < 4&"> <;;9-C5B J -A -9 ==5"<:45 ><C5 ?5 -8"B59: <"B Q < *(6 !*(' *6 * (' 4'L'7 8> !' *M3 2 =44 (') ! / 7' + .

K <77-9B - <=:&">4<?! ;9&= *F! DY 1 < =44 '(3

-7' <9?<' <"B' <:;&9&">' -' 95>&A&B5' "-459' ?:' &"' <
;-:& &-"!' &7' 45' A-8=B' J5';95C<&=5B' -"!' -' <::&:' &"' : 9&DS
&">' 45' J=-6' 5' 4&?:5=7' 6<:' B5L 59-8:!' :8J =5!' ?<" K'
-">85B!' <"B' <' 4-9-8>4=' <"B' A-?;=5 5=' 9<&"5B';8;&='
-7' 45' 5:8&' :A4--=' 5' 4<B' <=95<B' ><&"5B' 45' 95S
><9B' -7' (-9><"' -' J5' 98:5B' J' (-9><"' 6<:' -' J5'
98:5B' J' 45' %855"' -7' A-:' "' <==' :&B5:' 45' 6<:'
5LW$A=' :8& 5B' -' <=:&">4<?@:';89;-:5

"B' 45' 4<B' -"5' ?-95' W8<=&7&A<&-"' -4&">' A-8=B'
J5' B-"5' 64&=5' 45' %855"' -7' A-:' 6<:' <' 8 J89' 45'
<;;9-<A45:' -' 45' A<:=5' 6595' --' B&77&A8=!' 45' >8<9B' --'
5775A &C5' -' J5' 5C<B5B' 45' %855"' -7' A-:' 6<:' A=<?-9S
-8:' -' J5' 95?-C5B!' &"' 45' 4-;5!';--9' A95< 895!' 4<' :45'
?&>4' 7&"B' A-??8"&A<&-"' 5=:5645595' =5::' &?;-::&J=5'
<=:&">4<?' 7-9' 45' :<?5' 95<:-"' 6<:' 5W8<==' <"L&-8:' -'
48?-89' 459' 5 655"' 45' 95A<==' -7' (<8C&::&595' <"B'
45' <;;-&" ?5"' -7' (' B5' 4<: 5<8"587!' 4595' 6<:' <
:4-9' &" 59C<=' B89&">' 64&A4' 4595' 6<:' "-' 95"A4' (&"&S
:59' &"' -"B-"' 45' ?-?5"' 6<:' <D5"' -' A=-:5' 45'
=<:' <C5"85' 64&A4' :45' ;-::5::5B' 45' 6<:' &"7-9?5B'
4<' 459' ;<AD5:' ?8:' 7-9' 45' 78 895' J5' :5"' 49-8>4'
<=:&">4<? E$" 45' =-:' =& =5' 4<' 6<:' :8J: <" &<=' J'
45' A4<">5 45' =5 59:' 64&A4' :45' 69-5' -' (<8C&::&595'
/ 595' <=6<:' :8JR5A' -' J5' 95<B!" -9' 8"B59' <" ' A&9A8?S
:<"A5:' A-8=B' :45' 4<C5' 98:5B' 4&?' /6&4' 459' ;-=& &A<=
:5A&&5:' 8' :45' 4<B' J55"' <AA8:-?5B' -';-89' -8' 459'
;9&C<5' A-?;=<&" :' -' 4&?' 49-8>4' 4&?' :45' 4<B' &"B5S
;5"B5"' <AA5::' -' =&I<J5 4@:' 5<9' ' 6<:' 75=!' <"B'
<=:&">4<?' ?5<"' &' -' J5' 75=!' <:' 95"B59&">' 459'
&:-=<&-"' ?-95' A-?;=5 5!' <"B' &99&<&">' 459' 5<>59"5::'
-' 65=A-?5' <' "56' -;;-9 8"&' 6&4-8' --' A89&-8:' <
A98&"

K' 5<B:' -7' <' =5 59' -' &9' ? ":' <8=5!' 5;' *F$.F!' *M3M _ =44'
.1 (4')! /' ' + '

45 =<: =5 59 64&A4 :45 4<B 95A5&C5B 79- ? (<8C&:$:&595 4<B 69-8>4 $789 459 8;-" 459 48?-89 &" 45 :<?5 B&95A &-" 4<B -=B 459 4< <?5: 6<: J5A-?&"> 5C59 B< < ?-95 A-"7&9?5B 9- 5: <" ! <"B 4< 45 6<: -" 45 ?-: A-9B&<= 95=< &-": 6& 4 =&I<J5 4! - 64-? 45 4<B 9<":75995B 45 "<?5 -7 ? - 459

 7-8"B 459! 69- 5 <8=5 ! ?<9C5==-8:= &"A5":5B! 95"-8"A&"> <== 459 7-9?59 ;9-7& 59:! <"B ;9- 5: &"> 4< 7<&9 6-9B: :4<== "5C59 ;59:8<B5 459 - ? <D5 45 =&D5 <><&" 4< :45 &: :;-&=5B -7 459 :-" J C&-=5"A5 <"B - 5" 5&<&" 4&?" &" 4&: A-89:5! :45 A<""- J5 :87&595B - 4<C5 &" 5==&>5"A5 6& 4 4&? 45 A-8=B "- :< &:7 459:5=7 6& 4 A-?;=<&"&">! <"B &" C59 :4<9;' <"B J& 59 59?:! 4<C&"> =-: <== ;< &5"A5! <"B A& &"> C5">5<"A5 <><&": 459 5"5?&5: H &

=&I<J5 4 ?<B5 <7<C-89 -7 A-":5" &"> -459 A4<">5 -795:&B5"A5 <"B <AA-?;<"&5B & 6& 4 <=5A 895 -" &99& <S J&=& 45 %855" -7 A- :;<::&-"< 5 <"B 8" 4<"DS 78= B5<=&">! :45 :<&B! B5:59C5B =& =5 7<C-89 ! 45 4<B "5C59 5" 595B &" - <" 95< 6& 4 459 J8 4595 6<: B&:A-C595B :-?5 "- <J=5 95<:;" <><&": 459 ;9<A &:5B J 459:5=7 -9 459 B5;5"B5": 45 6<: "- :- 65<D <"B &"5L;59&5"A5B <: - J5 A<99&5B J <" J-B 79-? 64< 6<: <>955<J=5 - 95<:-" <"B 4-"-89 45 %855" -7 A- : :4-8=B =5<C5 4-:5 W8<995=: <"B 5?;59 459 ;< &5"A5 7 <" 9&"A5 J8 459:5=7 4<B 95A5&C5B 45 69-"> 64&A4 :45 4<B 95A5&C5B < 45 %855" -7 A- : 4<"B:! Q:45 :4-8=B "- 4<C5 J55" &" A<:5 - 4<C5 A-?;=<&"5B &"A5! 4-65C59! :45 B&:=&D5B 8 $ J89 ! <"B 45 A-=B <&9 ?&>4 B&:<>955 6& 4 459 &" 45 A-?&"> 6&" 59! :45 :4-8=B J5 95?-C5B - :-?5 ?-95 A-"C5"&5" ;=<A5 4<9 =5 (<"-9! 45 4-8:5 -7 45 -8"> -9B ::5L! 6<: =<9>5! 9--? ! <"B 65== B5$

* <8=5 - <=:&">J< & ! 5; 3$*3 _ =44 (4) ! / - +

75"B5B' &9' ? <:' <8=5 ' ?&>4 '=--D' < ' & ' <"B' 95;-9 ' -'" & :' A<;<J&=& &5: H

-6!' =&<9 =5 ' 4<B' "- ' -"= ' 45' <BC<" <>5:' 64&A4' =&I<J5 4' B5:A9&J5B!' J8 ' 45' 4<9 =5 ' 5: < 5' <BR-&"5B' 45' ;9-;59 ' -7' 45' 7< 459' -7' &=J59 ' &77-9B ' &=J59 ' 6<:' 7<?&=&<9' 6& 4' 4-8:5' <"B' >9-8"B:' <:' J- :' -"= ' <95' -9' A<"' J5 ' 5' D"56' 64595' 45' 6<==:' A-8=B' J5' :A<=5B' 7-9' $J&9B:@$"5: :!' <"B' 64595' 4595' 6595' 4&B&">$;=<A5:' 64&A4' 6-8=B' J<77=5' <8=5 @:' :5" &"5=:' 45' 4-8:54--B' -8=B' 4<C5' -' B5;5"B' 7-9' & :' :8;;=&5:' -"' 45' "5&>4S J-89&">' -6"' <"B' 7<9?$4-8:5:' <"B' <' &77-9B!' B5<9' 7-9' 4&:' -6"' :<D5!' <"B' B5<959' 7-9' 4&:' 7< 459@:' ;59:5A8 &-"!' -8=B' 7&"B' :6-9"' 79&5"B:' &"' 5C59 ' ;5<:<" @:' A- <>5@' -4"' &77-9B@:' -6"' 4-8:5' 6-8=B' 4<C5' J55"' : &==' ?-95' A-"C5"&5" ' <=:&">4<?' ?5" &-"5B' & ' &"A&B5" <== ' -' <8=5 ' <:' 7-9' :-?5' 95<:-":' ;95759<J=5!' <"B' B5:&95B' 4&?' -' 5L<?&"5' & !' J8 ' 6& 4-8 ' C5" 89&">' -' 5L;=<&"' 4&:' ?-&C5

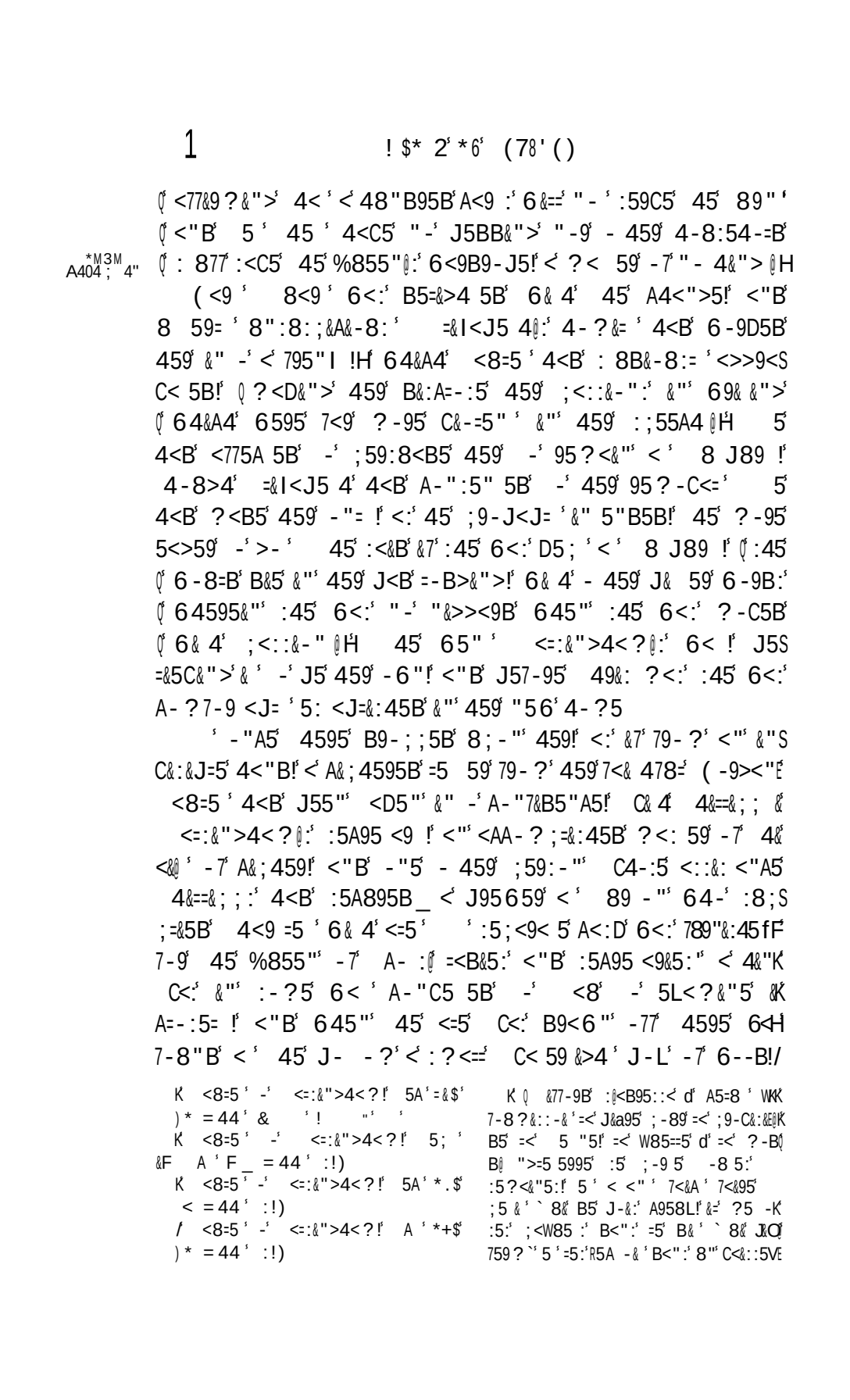
<8=5 !' "5C59' >85::&">' 4<' 45' 6<:' 9<C59:&">' <4' :&">4<?@:' ;=<":!' -JR5A 5B' :9-">= ' 45' "5&>4J-89S 4--B' 6<:' &==$<775A 5B!' 45' :<&B!' <"B' 45' 4-8:5' & :5=7' 6& 4S -8 ' ?-<' -9' 6<==!' 45' 6&"B-6:' -;5"&">' &" -' 45' ><9B5"!' <"B' B&77&A8=' &7' "-' &?;-::&J=5' -' >8<9B ' --"59' 4<"' <D5' 4&:' ;9&:-"59' -' :8A4'<';=<A5' <:' 4< !' 45' ;9575995B' -' D55;' 459' <' 8 J89

<=:&">4<?' :<&B' "-' ?-95' 4<9 =5 ' 6H-8=B' B-' C59 ' k 5=' ' 6<:' =<9>5!' 6<9?!' <"B' 65=='789"&:45B ' ' 6<:' 899-8"B5B' J ' 6< 59!' <"B' x"-'8"&?;-9 <" 'A-":&B59< &-" ' & ' 6<:' J8 ' 65=C5' ?&=5:' B&: <" ' @ -8' 6-8=B' 4<9B= ' K' J5=&5C5!@ :<&B' <8=5 !' @ 45' J<>><>5' 4<' 4&:' %855"' @ <"B' 459' A-?;<" ' 4<C5' -7' J--D:!' <;;<95=!' <"B' -459' @ =&D5' 9<:4" <8' <"B' 89&5' x 45' 6-':5A95 <9&5:' ;9< $' @ &">' ?5' -' ?<D5' ;9-C&:&-"' -7' 5&>4 ' A<9 :' < ' =5<: !' <"B

@ =&I<J5 4' -' <8=5 !' 5; ' *F$UF _ =44' BG ') ! /' ' + '

*M3F
5; 5?J59

A404 *M3M 4"



&"' 64&A4' 6<:' (-9><"@:' ;<AD5 ' ' A-" <&"5B' <"' &" 9-S B8A &-"' -7' &=J59 ' &77-9B!' <:' Q<' < 4-=&A' >5" =5?<"! Q' 65=' J9-8>4 ' 8;' &"' =5<9"&">!@ -"' 64-?' 45' %855"' -7' 85AA? 9 A- :' ?&>4 ' 4-9-8>4= ' B5;5"B!' <"B' 6& 4' 64-:5' <::&:S <"A5' :45' ?&>4 ' A-995:;-"B' 6& 4' 4&?:5=7' <"B' 6& 4' 459' - 459' 79&5"B:' &"' ">=<"B' <"B' 5=:5645 95 H' 45' A<:D' A<?5 &"' 655D= ' 45' J-L' 95&"A=-:5B' &"' 45' 5?; ' J<995=' 6-8=B' A<&@9 ' -8 ' 459' <":659:!' <"B' 45' A4<&"' -7' A-?78"&A< &-"' 6<:' < ' -"A5' A-?;=5 5

45' J95659' 4<B' J55"' ;89A4<:5B' J ' 4&>4' <"B' A-?S ;=&A< 5B' J9&J5:' ' 5' 6<:' 7&9:' ;<&B' J ' <=:&">4<?" "5L ' 45' 6<:' <::895B' -7' =<C&:4' 956<9B:' 79-?' 45' %855"' -7' A- :!' 64&A4' -' :5A895' 459' A-"7&B5"A5' & ' 6<:' "5A5::<9 ' -' ;59?& ' 4&?' -' 95A5&C5 ' <: = !' =&D5' <' 985' ">=&:4' A-8"B95=!' 45' 8:5B' 45' ;-::5::&-"' -7' <' < 5' :5A95 ' -' 5L<A ' <' 4&>459' ;9&A5' 7-9' 4&:' J559 H' 4&==&;;:' A<?5' -' 95:&B5' < ' 4<9 =5 ' 8"B59' 45' ;95 5"A5' -7' <::&: &">' <8=5 ' &"' 45' ?<"<>5?5" ' -7' 45' 4-8:54-=B ' C59 ' =5 59' A-"C5 5B' -' 45' %855"' -7' A- :' <"B' 5C59 ' =5 59' 64&A4' :45' :5" ' &"' 95 89"' 6<:' 5L<?&"5B' <"B' A-;&5B' J ' 4&?' J57-95' & ' 6<:' 7-96<9B5B' -' & :' B5:&"< &-"!' <"B' (-9><"@:' &" 9-B8A &-"' -7' &77-9B!' 64&A4' J5 9< 5B' 459' &" -' <=$" :&">4<?@:' 4<"B:!' 6<:' 45' 7&9:' -"' 64&A4' 45' 4<B' -' 5L59A&:5' 4&:' :D&==

&77-9B' 4&?:5=7!' --' -8">' <"B' &""-A5" $=--D&">' <:' 45' <;;5<95B' -' <8=5 ' 7-9' :-' &"C-=C5B' <' 9<":<A &-"!

B5' J&a95!' =5' W85==5' :-?7?5=&59' 95 &9-& ' 5 ' =5' J<&=-& ' d' <8(< =F.*! ')' 3$)' ' $ '. +6' # $ " -' H-=f C&

K' (-9><"' -' 45' %855"' -7' A- :!' A ' 8 87' 8'8)' _' =44' & $ ' %8 &9' ' 5A&;4595B' J ' g@4&=&;;:

K' <8=5@:' :-=&B' ?-9<=& ' k 6<: A<"B<&:5B' <' 4&:'=<:'75< 895' (' 45' 5:' ?<"!' 45' k 69-5!' Q;=<:' 45' 4<9=-' 5' &:' :-' ;59:8<B5B' 4<' ' A<""-':;<95' 4&:' :59C&A5' 4<' 45' 4<:' 95W8&95B' <"' &"A95<:5B' ;9&A5' 7-9' 4&:' J559' &"' 8"95<:-"<J=5' :-9 " <"B' 4<' :-' ;595?;-9&=' <:' ' ?8:' &5=B' -' 4&:' <:D&">' -9'=-:5' 4&:' :59C&A5' ' 4&"D' 4&:' "5E6' ?&:95::' <"B' 459' =&J59<=' 95H6<9B:' B-' ?<D5' 4&?' k 65<9' -7' - 459' :59C&A5@' _' R'+8 $' $*' '8!(7 ' .' (<' .M$ 8"5' B7 8')' =44' & ')! ' -' + '

4<B -9><"&:5B 4&: - 6" :4<95 -7 & 6& 4 < :D&=- 64&A4 &9
? <:@: J=8" 59 ?&"B 7<&=5B < 7&9: - A- ? ;9545"B
*M32 <"8<9 &9 ? <: 4-8>4 4< 4&: 95?8"59< &-" 79- ?: <=$
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4<" 45! D"56 4< >9< 8& -8: :5&6&A5: 6595 :8: ;&A&-8:
5 69- 5 - 45 %855" -7 A- : :< &"> 4< 45 6<
4-"-895B &" J5&"> -7 8:5 - 459! J8 95?&"B&"> 459
4< 45 6<: 9&:D&"> 4&: =&75! <"B A<;& 8=< &"> 7-9 <
;5":&-" H 4 ; -&" : J5 655" 89 -" <"B -"B-"! 45
4<B 7-8"B < 4-=&A >5" =5?5" 6& 4 64-:5 <::&: <"A5
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4<" 4< 45 A-" <&"5B=5 59:- 7 :8;95?5&?;-9 <"A5
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J95659@: 4-8:5! 45 6595 <?;595B 6& 4 "- ?-95V
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A<:D &77-9B 6<: < 7&9: 8;-" 45 : ;- <"B <A &C5&-
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<"B >< 459&"7-9?< &-" 64595C59 45 6<: 98: 5B " 4&:
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K Q 895= B-" ?&: 98: 45 -" 4&:%855"! 5 4< 4 A<;& 8=< 5B
7&B5=& -7 -89 79&5"B! J8 75<9 =5: 6& 4 459 7-9 ;5":&-":! <"B A<""-
4&: -8">5<9: <"B $6<" -7 5L;59&S 5=- 64< - 6 %7
5"A5 4<C5 "- J55"<": 659<J=5 -4&:
( ) ! (+ ' P"S
6&==! <"B 4< 7-965" -7 R8B>?5" B< 5B
45 4< 4 ;=< 5B 45 6<" -" &" 69& &">

&": 98?5" ' -7' 45' 98&"' -7' 45' =<B ' 64-?' 45' 6-9:4&;;5B' = #
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-7' ?&=&-' 5 655"' <8=5 ' <"B' <=:&">4<?' 45'
J95659' 6<:' A49&: 5"5B' &"' &9-" ' Q 45' 4-"5:' ?<"'@
&=J59 ' 6<:' <=:&">4<?@:' Q79&5"B'@ <"B' 45' A-8:&"!' 45'
@':8J: & 8 5@

&L' ;59:-":' -"= ' 6595' &"' ;-::5::&-"' -7' 45' 78==' :5A95 '
=&I<J5 4' <"B' <=:&">4<?!' J ' 64-?' 45' ;=-' 4<B' J55"'
A-" 9&C5B" &77-9B' <"B' 45' J95659!' 64-' 6595' & :' &"S
: 98?5" :" 4&==&;;:!' J ' 64-?' 45' A&;459:' 6595' 9<"S
:A9&J5B' <"B' 95<B' <"B' <8=5 !' 64-?'&' 4<B' J55"' 7-8"B'
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;=< 5B' 45&9' ;<9 ' <' 45' -8">' 5:8&@:' 6&==' 45'
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64&A4' 4595' 6<:' "-"5' -' :;<95!' 64595' <' A-995:;-"B;"55'
<:' -' J5' 6< A45B' J8 ' "-' B5 <&"5B!' <"B' 64595' <' B5=< '
&"' 45' 9<":?&::&-"' ?&>4 ' =5<B' -' B&:A-C59 ' 45'
-C59$A-"7&B5"A5' -7' (-9><"!' 4-65C59!' &"' &77-9B@:' ;9-S
J& ' B5;9&C5B' 45' 8"=8AD ' (<9 ' -7' 4&:' =<:' ;9-5A &-" '
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J8' 7-9' 45' 64-=5' ;<9 ' -7' 45' <9&:' A-":;&9<-9:!' 7-9'
8&:5!' 7-9' (5"B-I<!' 7-9' 45' 9A4J&:4-;' -7' =<:>-6!' 7-9'
<>5 !' <"B' 7-9' 98"B5="' <"B' 45' 7-96<9B5B' B8;=&A< 5:'
-' 45' %855"' -7' A-:' 45' D5 ' -7' 4&:' -6"!' 64&A4'
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A&;459' ' C<:' -' @ &5 9-@:' 7< 459!@ -=B' &77-9B!' 64-'
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& ;9-?&:5: 4< &7 5C59 :45 J5A<?5 4&: :-C5&K5&>"! 4&:
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C < <"8<9 45 C59 &"?-: :5A95 : -7 45 < 4-=&A A-"75B59<A
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5" 59;9&:5 C-8=B J5 :5 -"7-- 595 4595 6-8=B J5
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;-=&A -7 ;5<A5! <"B "- JR5A &-" A-8=B J5 95<:-"<J=
?<B5

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(-9><"! <>5 ! a95 =< 85! <"B 45 9A4J&:4-; -7
=<:>-6! 64&A4 4<B J55" = &">< 45 95"A4 ?J<:: "
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4-:5 5:;5A&<== 79-?< 85! 4<C5 J55" <=95<B W8-5B
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C&56 45 :4565B 45 < 4-=&A -659:8"A59 <&" <"H
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(<9 8<9 459:5=7 B&: 98: 5B! 45 -;5 8"B5A&B5fb@
4&=&;5?J<99<::5B J 45 :8AA5::&-" W85: &-"! <"B 4Ó
;59:&: 5"A5 -7 <?5:&" 4595: ?<B5 45 ?-: -7 <:
-J: <A=5 -&" 597595"A5

5&A5: 59 6<: J 4&:! &?5 >-"5 -45 -6 -?@E
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A4&5C-8: <A &C& *" <"B 48: 4<B >9-6" 45 C<A&=< &-"/

K 45 %855" -7 A- < - &5 9-@: 7< 459! 5A *M3M _ = 44 24 %9 =H
67 + '

<"B' ;59;=5L&">' ?-C5?5" :' -7' 45' 6&" 59' <"B' :;9&">' 4<' 6-8=B' J5' 45' 5775A' -7' 5&A5: 59@:' <AA5; <"A5' -7' 45' >-C59"?5" i' 64<' -7' 9<D5@:' 5L;=-& :' &"' 45' 5:' "B&5: i' 7'&"' 45' 7<A5' -7':8A4' <779-" :' <"B' &"R89&5:!' 45' <4-=&A' &">' 95?<&"5B' &?;<::&C5!' 4595' ?8:' J5' 5& 459' A-":A&-8:' 65<D"5::' 64&A4' &' 6-8=B' J5' "55B=5::' -' 75<9!' -9' 4595' ?8:' J5' <:&"A595' B5:&95' 7-9' ;5<A5!' 64&A4' &' 6-8=B' J5' 8"R8:' <"B' 7--=&:4' -' 9578:5' -' 95A&;9-A< 5 '=5 59'79-?' (-9><"'-7' 45' '4'-7' <"8<9 !'69& 5"' <:' :--"' <:' 45' D"56'7-9' A59 <&"' 4<' &77-9B' 4<B' 7-8"B' 45' 6<' -' B5=&C59'&!' ?8:' 4<C5' J55"' -;5"5B' 6& 4' 45' B55;5:' <"L&5 ' '6<:' -' 45' :<?5' ;89;-:5' <:' 4-:5' k EC4&A44<B' >-"5' J57-95' ;<&"' 4<B' <:' 5' ?<B5' "-' :&>"' (-9><"' :<&B' 4<' 45' 4<B' 69& 5"' -' -9B' 8?=5' B5S :&9&">' 4&?' -' D55;' 8;' 45' :;&9& :' -7' 4&:' ;<9 !' J8' 4<' 45' 4<B' 95A5&C5B' "-' <":659' @' 4595' 6<:' B5A<' &"' 45' @%855"' -7' A-:@:59C&A5@ @ (5"' 4<B' B9< C"' ?<9C5=-8:=' @J<AD!' <' 4-?5' J' 45' 9<"" ' -7' 4`' &?5!' <"B' J' 45' @4<9B"5::' -7';9&"A5:' <J9-<B@ 45' -;5' 6&:45B' 65=' -' 459!' J8' 6<:' ;-659=5::' 45' &">' -7' 9<"A5' 6-8=B' B-' =-4&">' -' -775"B' ">=<"B!' <"B' 6-8=B' <=-6' "-4&">' -' 45' B-"5' 5' 4<B' 95C-D5B' 45' -=59<&-"' 5B&A !' J8' 4&:' 5A95' 577-9' 6<:' -' JH95<D' 45' "5AD' -7' 45' 5<>85!' <"B' :4<D5' 45' A95B&' -7' 45' 8D5' -7' 8&:5' 5' 75<95B' 45' 8>85"-:' =5::' 4<"' 45' B&: 98: 5B' 45' 4-8:5' -7' -9$' &E<&"5!' <"B' 45957-95' (-9><"' A-"A=8B5B!' 4-8>4' &' 65" ' -' 4&:' 45<9' -' :<' :-!' 4<' "-4&">' A-8=B' J5' B-"5' 7-9' 459@' 45' A-8=B' J8' ;9<!' <:' 45' :-=5' 9578>5' -7' A-":A&-8:' &?;-5"A5!' 4<' -B' 6-8=B' ?5"B' <=H

6 &$ .3' &' / ' P 3' &4' %& ' &3Z' B*' ' # %&" ' .' [&" .3' +. /&*%' .3' *3$.3!' =44' 2 ')! /' .35' /. /' # 3' .' [&"&' .35' /. /' H# + ' W %*!/ $' /*' $' 5&3' &# 5* 3%' &' /*' &*3 ' .35' +&3 .*3' .@% $*& ' !. . ' 7/*%/' 7. '7 ' $! % 5' / $ ' ' /*' &" '&3 ' ".$ 5'7* /' .'4*3 $' *' A ! %$ ' ' * ' / ' / *$' &4' cD . ;' + %* 6' Y $ / ?' $.35 $ / ?'/& ?

45=5 59:64&A47-==-65B6595"-?-955"A-89<f'&"fi
4<9=5: <>5 &"7-9?5B 45%855"-7 A- :!-" 45 7 4
-7 5J98<9 ! 4< 45 <"B 45 - 459 ">=&:4 9578>55:
6595 &" >95< B&: 95:: 45 ;5":&-":;9-?&:5B 45?
J 4&=&;4<B "- J55";<&B!<"B 45 6595 W8<995==&">
-C59 45 :8AA5::&-" - 45 9-HC" 45 9A4J&:4-;-7
=<:>-6 <"B 8&:5 6595 &" 7<C-89 -7 <?5: 45
">=&:4 5L&=5: 6595 :8:;5A 5B -7 &"A=&"&"> -;<&"!
<"B 6595 =--D5B -" A-=B= < 45 95"A4 -89 &" A-"S
:5W85"A5H

45 9A4J&:4-;-7 =<:>-6! < 45 5"B -7 (<9A4!
6<: :&== ?-95 B5:;-"B5" 45 4-;5:7-9?5B-7 A-S
=<"B! 45 :<&B! 4<B J55" 46<9 5B J 45 (<: 59 -7 9< K
8&:5 6<: --?8A4 -AA8;&5B &" 9<"A5 - < 5"B -
">=<"B 45 95"A4 &"> 4<B < -"5 &?5 :55?5B
J5 59 B&:;-:5B! J8 & 6<: -"= < 75&" - B&:A-C59 45
&" 5" &-":-7 8&:5! <"B 645" <:D5B B&95A = 7-9 <::&:S
<"A5! 4<B 9578:5B - >&C5 & - 95:-=8 &-" 4<B J55P
7-9?5B J <" -"5!H <"B Q 45 5" 59;9&:5@ 6<:&" <J5 E
<"A5 (5"B-I<! 45 9A4J&:4-;:<&B! =<&B 45 J=<?5-"
45 95"A4 -C59"?5" 45 &"> -7 ;<&" 6<H
8"<J=5 - 8"B59 <D5 <" 4&">! =5: 45 :4-8=B 4<C5
@9<"A5 <: 65== <: ">=<"B -" 4&:4<"B:

><&" (-9><" 95;-9 5B 4< Q 45 95"A4 %"> 4<B
Q J55" < 4<"B 6& 4 45 -;5! - ;9-C&B5 4< "- 4&">
Q J5< 5?; 5B <><&": ">=<"B <"B (5"B-I< 4&?:5=7
J-95 4&: ;59:-"<= 5: &?-" - 45 :<?5 ;89;-:5

B +/.$ =. & / P 3&4 6 &$ .3 &/ P 3&4 %& S
%& # V V .$%/ U - =44 :!) 3 /\!
) ! / - + ' W %*!/ $ $4&$ / 4*$ *" / $ * 96
6B [&$4 %%C D!" 3($*.%/ "*3F J F$* " 3$*3$. *&3 &* %$7/*%/ /& /6
F4.*%3*$F & 5& .5*% 3$; /*!$&% 5*3 &3=/**!" #S00
!$* ?- X % 3N ! &$*B *6 8' 7*- 5*4* 5 *@.# /
$*$ $ + (*6 43*$.$%/ U B *% $ *A /*" 4 /^!0
=44 *) ! / - + ' W ; .A 3 / & ($3" 3 &4 & 6
%*!/ $ .35Q . .35 *3 /* &73 3." % 6

45 &"> -7 9<"A5 <"B 45 %855"$?-459! 45 69- 5! <95 "- "= "- &"A=&"5B -<:&: &"" 45 95B8A$ &-"" -7 ">=<"B <"B 45 ;8"&:4?5" -7 45 ;95:5" -AA8;<" -7 45 49-"5! J8 45 <95 B5 59?&"5B - B575"B 459 <"B : <"B J 459 45 4<C5 95W85: 5B 45 -;5 -B&:A-8" 5"<"A5 <==C&-=5"A5! <"B -5A5<:5 -89>5 45 &"C<:&-"" 8;-"" ;<&"! =5: !& ;9-C-D5 <4595 &A=5<>85! <"B =5<B 48: ->5"59<A-"78:&-" 4-;5 &"" -B 4< 45 6&== :-7 5"" 45 45<9 : -7 45:5 ;5-;=5 45 <95 "-6 <: 4<9B <: :-"5:H

6<: 45 -=B : -9 - < :&">=5 -J: <A=5 4<B J55"" 95?-C5B 9<"A5 <"B ;<&"" : --B 64595 45 4<B <=6< : : --B! 6<9"&"> 5<A4 - 459 -77 79-?&" 597595"A5 <"B! &": 5<B -7 ;95;<9&"> -95C5">5 8;-"" =&I<J5 4 4&: -6"" <"B 45 489A4: 69-">:! 4&=&;4<B -"= <>>9<SC< 5B 45 "< 89<B&77&A8= &5: -7 45 ;-:& &-" &: ?<"S I 8C95: -:5A895 45 :8AA5::&-"" 4<B B&C&B5B 45 ">S =&:4! 4<B <=&5"< 5B 45 A-:! <"B!! &7 ;59:5C595B &"! 495< 5"5B -8"& 5 45 8&:5: 6& 4 45 95"A4 &E-6"" &"" -;;-:& &-"" -4&? =&I<J5 4: &":&>4 4<B J55"":-7<9R8: &7&5B! 4< 45 A-"B& &-":95<== 5L&: 5B 7-9 7<C-89S <J=5 :5 =5?5" 6& 4 459 J9-459$&"$=<6 <"B &"" 459 5"$

9<9 -: &:A-??&::&-"! 645958;-"" :45 -7 ">=<"B : -9?5B "-<=& =5! 59?&">4&?&<& -9 <"B C&=<&"! 2% ! ! 2 . 2 x8"B59S =&"5B &"" 45 -9&>&"<= <"B ?<9D5B >>u 5 <D5: 45 ?< 59 8;-"" 4&?<: 4-8>4 45 6595 <J:-=8 5 &">! <"B 4<: ?<" ;59:-"<>5:-7 >--B ;=<A5 -8-7 ">=<"B! 45 J5: "8?J59 64595-7 B5:&95 "-4&"> "&-9- 4<"" 4&:A-"78:&-" -=<?5" 5 B&9`" -: 5: d =< #-=8" <B B5= 5 B5 9<"A&< :8 "<<B95 "-:-=-;9-?;<;<9< =< 95$ B8AA&-"" B5 ">=< 599< A<: &>-B5 =< 5 "< W85 =< ;-::55! ;59- ;<9<"" <"" B5 :8 ;<9 5 ;<9< B575"B5P5 -;-"59:5 W85 "- 4< < 5L5A8A&-" 85: 4<"" 45A4- ;-9?5B&- B5= <9S B&"<= B : 5 B5A&9Y :8 <" &B<B "-&": 5 <= 5 ?& 5[-9W85 4<>< =< &?;95:< B5 ">=< 599<! ;-9W85 5: -:59&< A<8:< <A-9B<9:5 A-"" =-: 4595>5: B5 :8 5 "- B5 -9<: ;9-C&"A&<: ;<9< 5= B575"B5=5 :;59- 5"" &-: W85 4< B5 :59 :59C&B- B5 <J=<"B<9 5= ;5A4- B5: 5 5 B5 9<"A&< :8 ?<B95 W85 <"" 5?;5B5?5:A&B-: :5 ?85: 9<"" 5"" 5: 5 ;<9 &A8=<9 8 52). !9: 1 5S A&;459 2) ! / + '

B5<C-89: <7 59 ;5<A5! 64&A4 6595 "5C59 ? -95 : 95"8-8:
G 4<"< 4&: ? - ?5" ! :45 < =5<: 4<B < 95<= 7-8"B< &-"
! *M32 -> -8; -"
! "

8 :45 4<B -B- 6& 4 < ;<9= 64- 6595 "- &"A=&"5B
E -: &B-HC" 8"B59 B&:<; ;-&" ?5" =C< 4<B -=B 45
">=&:4 < 4-=&A: 7&7 55"5<9: J57-95! 4< &7 45 6<" 5B
;<&" -45=;! 45?! 45 ?8: 7&9: 45=; 45?:5=C5: <"B
45 4<B &"B&A< 5B 45 6< &" 64&A4 45 :4-8=B ;9-A55B
><&" <"B <><&" 45 4<B 9&5B <"B 7<&=5B" J8 4595
4<B J55"? <" 7<&=895: 6& 4 &&5 9&"A5 -7 9<">5!<"B
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A5::78= :4- 6<: <"5"B89&"> 5"A-89<>5?5" -; ;59:5S
C595 =&I<J5 4@: =&75 6<: 45 -"= -J: 98A &-" 45"
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6-8=B <D5 <9?: 7-9 459 =<6 78= :8AA5::-9 =&I<J5 4
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6-8=B A5<:5 -7& :5=7! 64&=5 &"7&"& 5 B8A< :&"4&: 6-9=B
<"B ;<9<B&:5 <"B A<"-"&:< &-"&" 45 "5L 6595 6<& &">
7-9 45 48B -9 45 8B& 4 64- 6-8=B 9&B 45 :<&" :-7
45&9 -; ;95::-9

6<: < 4&: ?-?5" ! :8J:5W85" -(5"B-I<@: B5
:;-"B&">=5 59! <"B J57-95 45 5"B -7 45 7&9: 655D &"
(< ! 4< 45 7<?-8: <J&"> -" A-": ;&9<A -9><"&:5B
& :5=7&" -:4<;5 4<: J55"95;95:5" 5B <: :5 -" 7--
J <=:&">4<?! - 5?; 45 %855" -7 A- : - 98&"
459:5=7 6<: 8 59= 8"A-""5A 5B&" & : -9&>&" 5& 457
6& 4 4&?-9 6& 4 4&: &": 98?5" : 45 A4<""5= -7 A-?
?8"&A< &-" 64&A4 &=J59 &77-9B 4<B -;5"5B 6<: ?<BH
8:5 -7 J 45 A-": ;&9< -9:! J8 45 ;89;-:5 4<B "-5L&:
5"A5 &" <=:&">4<?@: -9&>&"<= B5:&>"! "-9 B-5: & <; ;5"B
4< &77-&B 4&?:5=7 6<: 5C5" 98: 5B 6& 4 45 :5A95 ! -7
6<: ?-95 4<" ;<9 &<== ! <AA&B5" <== ! <"B 5L 59"<=j
A-""5A 5B 6& 4 5& 459 <J&"> -" -9 4&: <AA-?;=&A5:

45 95<B59 6&= 95?5?J59 < D"- -7 B5C-8 -8"H

>5" =5?5"$64-' 5" 59 <&"5B' <?;&<"' <' 4&:' A-?&">' -' -"B-"!' <"B' 7-9?5B' 45?:5=C5:' &" -' <' :-A&5 '7-9' 45' ;9- 5A &-"' <"B' :8;;-9' -7' 45' 5:8& :' "5' -7' 45:5!' " 4-" ' <J&"> -"!' -7' 5 4&AD!'&"' 59J :=&&95!' <' -8">' ?<"' -7' A-":&B59<J=5'7-9 8"5!' 4<B' J55"' <' ;<>5' <' 457K' 7&5=B!' 645"' 45' %855"' -7' A-:' 6<:' 7&9:' &"' A4<9>5@-7' -9B' 4956:J89 !'<"B' =&D5' :-' ?<" ' -459:' 64-' A<?5' 6& 4&"' 45' :;5=' -7' 459' &"7=85"A5!' 45' J5A<?5';<::&-"< 5=' !B5C- 5B' -' 459' <"B' 459' A<8:5' L;59&5"A5' 4<B' "-' <8>4' =&I<J5 4' 45' &?;98B5"A5' -7' 7&==&">' 459' 4-8:54-=B' C&4' <4-=&A:' 45&9' 4<"B&6-9D' A<"' J5'7-9' 5C59' 55B' J5S' 4&"B' 45' :A5"5:!' J5 9< &">' 45' :5A95 :' -9' 46<9 &">' 45' ;-=&A ' -7' 459' ?&"&: 59:' 45' 4<B' :55"' -"A5' <=95<B '&"' -A -9' <99 !' 4<' 459' >5"59-8:' A-"7&B5"A5' 6<:' "-' 5A89& '<><&":' 95<:-"' 45' C<:' <J-8' -' J5'956<9B5B' C&4' <' A-"A=8B&">' &==8: 9< &-"' 4<'48?<"' -J=&>< &-":' <95' J8' <:' :9<6:' J57-95' 45'7<:A&"< &-":' -7' 45-=-> "' 4<' 4595' &:' "-' C&==<" ' 64&A4' 95=&>&-8:' 5?;<&-"' C&=' -' :-?5&?5:' 5=5C< 5' &" -' 45' A-8" 5975&' -7' C&9 85 -8">' <4-=&A:' -7' >--B' 7<?&=' 6595' <=6<:' A59 <&"' -7' <6<9?' 65=A-?5' <' A-89 "' <"B' &' 6<:' <?-">' 45:5' <"B' &"' 45' 4-8:54-=B' &:5=7' 4<' <J&"> -"' :-8>4' <"B' 7-8"B' 45' 79&5"B:' 64-' 6595' -' 8"& 5' 6& 4' 4&?' &"' 4&:' -8" 9@:' =&J59< &-"' 45' -9&>&"<=' &": &>< -9' <;;5<9:' -' 4<C5' J55"' -4"' <==<9B!' -"5' -7' 45' C-' 5:8&:' 64-' B' :-8>4' <"B' -J <&"5B' 45' :<"^ &-"-7' 95>-9' ' -' 45' %855"@:' ?89B59H' <"B' C4-' 4<B' :&"A5' A=8">' -' 4&:' ;89;-:5' 6& 4' 45' 5"<A& ' -7' <:=58 4$4-8"B' "' 45' 95A5B&">' 5;5?J59!' 645"' 45' &" 597595"A5' &"' 45' -6' -8" 9&5:' 6<:' 7&9:' 95:-=C5B' -"!' <D&">' <BC<" <>5' -7' 45' &99& <&-"' 64&A4' 6<:' A59 <&"' -' J5' 75=' &"' 45' <4-=&A' <"B' :5?&$ <4-=&A' 7<?&=&5:!' <==<9B' 4<B' 9<S' C5==5B' 49-8>4' ">=<"B' 8"B59' 45' "<?5' -7' <;<&"' -9$' 75:A85!' B&:>8&:5B' <:' <"' -77&A59' C&4' J=85' C5=C5' R59D&"

*M32 (

<"B A<; <"B 75< 459 &5 4<B ;5"5 9< 5B 5C59 A-8" !
<"B A-"C59:5B 6& 4 5C59 >5" =5?<" 64- A-8=B J5
98: 5B " <== 45 4<B 7-8"B 45 :<?5 755=&">_ 95>95 !
;59;=5L& ! <"B 5L<:;59< &-" _ <" <9B5" B5:&95 &"
< 4-=&A <"B :A4&:?< &AH - :55 ">=<"B 958"& 5B - 45
489A4! <"B < 95<B&"5:: : &== - 9&:5 &" &":8995A &-" &7
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5L5A8 &-" -7 45 8D5 -7 -97-=D 98"B5=! 4-8>4 <
;9&:-"59! =5 4&? D"-6 4< 45 4<B ?5<": - ?<D5 4&?$
:5 ?<: 59 -7 45 -659" 64&=5 4&: 8"A=5 -9B 5"9
8"B59 --D - 9<&:5 45 5<: 59" A-8" &5: -8"> 59A !
A<==&"> 4&?:5=7 <9= -7 -9 48?J59=<"B! -9B 9<">5!
45 45&9 -7 45 4-8:5 -7 <"=5 ! -9B -89 -"! -9B
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: <J=5! <"B - 459: J5:&B5:! 4<B J-8"B 45?:5=C5: J
:-?5 D&"B -7 -< 4 - : <"B J 5<A4 - 459 <"B 45
489A4 &9 &==&<? -89 5"< 4<B ;9-?&:5B -
:5&I5 = ?-8 4 -9B (-" <>85! -9B #<8L! &9 $
95:4<?! &9 4-?<: & I459J59 ! &9 &=4<? <5:J V
&9 &==&<? -8 46&==! 6595 95<B - R-&" &" < 95S
C-= ! 645" -"A5 & 4<B J9-D5" -8 <"B =<8B5 <?&
-" <"B -9B (<L65== ?&>4 J5 B5;5"B5B -" 6& 4
<9? -7 A- :
6<: 45 :<?5 A-"75B59<A 64&A4 4<B J55" ?<"j
&?5: 7-9?5B <"B B&::-=C5B <: -7 5" <==<9B :;-D5 %1

K 4&=&; <:4&"> 7-9 <" 5L;=<"< &-" ;59B5==<! =5: 4<A5! -J5B5A&5"B- KKO
-7 45 6-9B % <: <;;=&5B - =5 5: B5 =< 5 "<! &9 Y =<: ;59C59: H
< ;<9 &" ">=<"B! (5"B-I< <"S ;=< &A<: Y <=>8"-: 95A&J&9 =< <J-6K
:6595B! @ =&-: A-"-A5" =< C59B<B59< "<J=5 A-?? 8"&-" 8 (
95=&>&-" ;9-75:<" 5" :8: A-9<N-"5:! ., 5 &5?J95 ! C-= C
;59- 5= <?-9 B5 =< 4<A&5"B<! ;-9"-

;5&@:-":@ -"= J5 -"B 45 ;9&"A&;<=:! 06595 <6<95 4<
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=&I<J5 4@C =&75 6<: <&?5B< " <"B 45 ;9-?&:5 -7&":89S
*M32
(<
95A &-" 6<: ;9-J<J= "-? -95 4<" < B5A=<9< &-" -7 45
;<9 &" 7<C-89 -7 45 %855" -7 A- :@ A=<&?: -" 45
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J <9?:&7B&:;8 5B J 45 9-5: <" :

45 - 459 ;<9 -7 45 <AA-8"! 4-65C59! 5C5" -: 45
J<:5: B5 <&=:-7&! 6<: ;5975A = A-995A 6<: :4<?5S
78== 985! 4< < J-B -7 >5" =5?5"! :-?5 -7 45?
:6-9" :59C<" : -7 45 %855"! - 459: A-""5A 5B B&95A =
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45!:-" -7 459 8"B59 95<:8959 &" -"5: 45 :-" -7 45
?<: 59 -7 45 6<9B9-J5 &" 8"" 64-6<: &" 45
&9: 98& : 77&A5 &" -J59 <9"65=<" 9&:4?<" 64-
6<: -" < C&:& -45 -89 <"B&" - 459 -8">?5" -7
7<?&= 64-?: 45 4<B 5"A-89<>5B -A-?5 <J-8 459_E
_ 4&B&-AD &A4J-89"5! B6<9B 4<9"-AD! B6<9B
&"B:-9 -9B &"B:-9@: J9- 459 &9 4-?<: 599<9Bi
<"B 4-?<: <=&:J89 64- < -"5 &?5 4<B J55" < 7-J
=-659 -7 5&A5:59 "5 -"= -7 45 :&L :;-D5" -7 J
(5"B-I<! -=?: <C<>5! 6<: 7955 79-?: 4&: 5LA5;&-"<=
<"B ;5A8=&<9 J<:5"5:: <C<>5 4<B J55" < :-=B&59 8"B5&
<9?< 5 4<B ;<::5B 49-8>4 45&?: -" 4&: 95 89&&
- ">=<"B! 64595 &=J59 &77-9B@: J9- 459! 5-9>5! 4<B
:5 4&: ?&"B 98" "&"> 8;-" 95>&A&B5 <"B 7&"B&"> 64<H
6<: >-&"> -"! 45 C-=8" 5595B -R-&" 45 A-":;&9<A

45 ;=<" 6<: - B&:;< A4 45 %855" 7&9: R <"B <7 59S
6<9B: 5A&=! <=:&">4<?! 8":B-"! <"B &9 C"-= "
<"B 4&: J5&"> B-"5! <"B 45 : 95"> 4 -7 45 9-5: <"
;<9 J5&"> &" 45 -6 -8" 9&5:! 45 :<">8&"5 (5"B-I&H

&?<>&"5B' 4<' 45' 95C-=8 &-"' 6-8=B' J5' <AA-?;=&:45B' -"' 45' :;-' 5' ?<B5' =&>4' -7' B&77&A8= &5:' &"' 4&:' 5<>59"5::!' -' J5' 95C5">5B' 7-9' 4&:' 5L;8=:&-"' 5' 6&$-5' 5" 48:&S <: &A<==' -' 4&=&;!'5" 95< &">' 4&?' -' >&C5' 45' A-":;&9< -9:' 4&:' 8;;-9' <"B' 49-8>4' <==<9B!' <"B' J' <' =5 59!' 45' :5"' 45?' 4&:' -6"' 6<9?5:' 5"A-89<>5?5"' -';59:5C595' &"' <"' 5" 59;9&:5':-' <4-=&A' <"B' :-' 6-9 4' -7' 45' <"A&5"' ">=&:4' C<=-89 H

<sB">' B-"5' 4&:' 6-9D' &"' <9&:!' <==<9B' 95 89"5B' -' ">=<"B' -' 95;-9' (5"B-I<@:' <": C59' 57-95' 45' 65" !' 4-65C59!' 45' :<6' 4<9=5:' <>5' <"B' =5' 4&?' D"-6' >5"59<==' 4<' <"' &":8995A &-"' 6<:' <J-8' -' J95<D' -8' 5' :<6' (-9><"' &"' 45' <: &=5!' -' 64-?' 45' X-=B' 5C59 S 4&">' <"B' (-9><"' &" 9-B8A5B' 4&?' -' &=J59' &77-9B!' <:' <;59:-"' 49-8>4' 64-?' A-??8"&A< &-"' C<:' ;-::&J=5' / &4 45' %855"' -7' A-:

7' 45&K5' 6<:' <;59:-"' 79-?' 64-?' 45' A-":;&9<A' -8>4' ?-:' A<9578==' -' 4<C5' J55"' A-"A5<=5B!' 4<' ;59:-"' 6<:' H<9' 8<9' 45' A-8=B' 459:5=7' B-' "-4&">!' <"B' -' <AW8<&"' 459' J57-954<"B' 6& 4' :-' B<9D' <;89;-:5' 6<:' -' 5L;-:5' 459' -' >9< 8& -8:' B<">59!' <"B' 6<:' -' <:D' 459' -9' <B&95A' :<"A &-"' 64&A4' :45' A-8=B' "-' 4-"-89<J=' >&C5' <>5' 69-5' -' 5==' 459' 4<' <95J5==&-"' C<:' "-' P"=&D5=!' 4<' 45' 9&"A5' -7' <9?<?&>4' J5' =--D5B' 7-9' <' 56A<: =5' -9' A<9J-9-8>4!' <"B' 4<' ?5<":' C-8=B' 45' <D5"' -' 5":895' 459' C"' :<75 H' 7' 45' D"56' ?-95' 45' C<:' ;98B5" =' :&=5" ' (-9><"!' 64-'6<:'<6<95' -7' 459' E<:4"5::' <"B' 64-' ?8:' 4<C5' -9' -8>4' -' 4<C5' >85::5B

K@ 5' 5A4-' 5=' <A->&?&5" -' <=' >5" &=4-?J95' W85' ?595A&<' :5?5R<" 5' ;9-;85: <!' ' ;-9' :59' <"' 49&: &<"<!' R8: <!' '<8?5" -' B5' "85: 9<' :<" <'75' <Z=&A<' '$:59C&A&-' B5' #' (<>EK!'=5:' J5' 5:A9& -' B-:' A<9 <:' ;-9' B&7595" 5:' C&<:!' <"&?Y"B-=5:' Y' =<' 5?;95:< A-?-' B&>"<' B5' Y"&?-:' <"' < -=&A5:' ' B5=' <" &>8-' C<=-9' ">=5:@_ = (I)*9'' '8' $ 2' E >-: -' ' C-&' #

K' 4<9=5:' <>5' -' 45' %855"' -7' A-:!' (<' *N$.N' _' =44' (,' ! "' '

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(<C

G

*M32 8"5

4< : :45 6-8=B J5 8" 9-8J=5B 6& 4 65<DK :A98;=5:! 4<B 45 :&">8=<9 &?;98B5"A5 - &" &@-B8A5 <J&"> W"= - 459! - ?5" &-"= 4&?' - 459 <:' < ;59:-"' 64-?' :45 4<B -"A5 D"-6"= 64- 6<:' <J-8 ' - B- 459 :59C&A5! <"B - :5"B 459 < A&;459 -7 64&A4 45 4<B >&C5"= 45 B8;=&A< 5 - <J&"> -"= 4&?:5=7 H 5 B&B "- ' < ' 7&9: ' 5" 59 &" - B5 <&=:! J8 ' 45 ><C5 ? : 59&-8:' 4&" :' 4< ' 4595 6<:' :-?5 4&"> &"= ;9->95::! J5:&B5:' <"B J5 -"B < ?595 &"$:89&@5A &-" ' 5 ?5" &-"5B <==<9B@:' "<?5 <:' A-"A59"5B &"= & ' "= ?-?5" <9 ' A<8 &-"= 45 :<&B 4< ' 45 4<B <BS C&:5B <==<9B "- ' - 69& 5 - 459 <J-8 ' & '' <"B 45 <BS C&:5B 459 &"= 89"! 64< 5C59 :45 ?&>4 ' 45<9! - 4-=B "-' &" 5==&>5"A5 6& 4 <==<9B! @7-9 75<9 &7 45 -9 4&:' ;<9 $ @ "59:' 6595 B&:A-C595B! 45 ' ?&>4 ' J ' ;<&":' B&:A-C59 459 @ (<R5: ' - 4<C5 4<B B5<=&">:' 6& 4 45?'' @ J8 ' 45 4<B 45 &"A-"A5&C<J=5 &?;98B5"A5 -'<BB &"= < ;-: :A9&; ' - 89&5! 64&A4 & ' 6<:' A59 <&"= 4< ' 45 %855"= -7 A- :' 6-8=B :55 _

K @ 4595 J5 ?<" ' ?5<":' &"= 4<"B - 95?-C5 45 J5<:' @ 4< ' 9-8J=5:' <== 45 6-9=B @H

"B 5C5"= 4&:' 6<:' "- '5"-8>4! J=5 6<:' :-' B5=&>4 5B 7-9 (<9 ' 8<9 @:' :<D5! 4< ' 45 A-8=B "- ' J8 ' ?<D5 45& 45 :4<959 459:5=7 -7 45 4<;' :5A95 ' E75 6 B< :' =< 5&K 45 -=B 459 ;=<&"= ' @ 4< ' 4595 6595 >--B ?5?J59:' @ < 5"B&">' 8;-"= -;;-9 8"& ' - B- 45 %855"= -7 ">E @ =<"B < ;&5A5 -7 :59C&A5 64&A4! &7' & ' ;=5<:5B -B - '=5"B @ <::&: <"A5! 45 98: 5B 6-8=B W8&5 ' ?<" ' 4&">: @O

45:5'=5 59:' 6595 7-96<9B5B - 4<9 =5 ' J ' 45 9-8 H 64&A4 <=:&">4<?' 4<B -;5"5B ' &77-9B! 4-8>4 4H <AA-?;<"&5B <==<9B 7&-?' <9&:' - ">=<"B! 6<:' ;59E :-"<== ' &>"-9<" ' -7 64< ' 6<:'>-&">'7-96<9B ' ' 6<:' "-

K (-9><"= - 45 %855"= -7 A- :! 8"-' *1$.1 _ =44 ' !)P
'O ' >F&)' ' K (-9><"= - 45 %855"= -7 AOKO
8= ' *N$.N _ =44 ' :!)

' ' ' ' "# 2*"" ' '

&==' <7 596<9B:' 4<' 45' =5<9" ' R ' &"' A-"C59:< &-"' 79-?'
<==<9B' 4&?:5=7' 4-8>4' 45' ;9-J<J=' :<6' <=:&">4<?'
&"' -"B-"!' 45957-95!' 45' 4<B' "- 4&">' -7' ?-?5" ' -'
?<D5' D"-6"' -' 4&?' 8' 45' =5 59:' 45?:5=C5:!' <:'
45 ' ;<::5B' &" -' 4&==&;;:@:' 4<"B!' -=B' 45&9' , ' : -9 "
<"B' &' ?8:' 4<C5' J55"' $6&4' ;9-7-8"B' A89&-:& ' 4<'
J-4' <=:&">4<?' <"B' =&I<J5 4' ?8:' 4<C5' 6< A45B'
7-9' 45' 5775A' 8;-"' 45' %855"' -7' A-:
45' 459:5=7!' 4<;;' &"' 45' 95?-C<=' -' 4<9=5' <"B'
45' :5A95' <AA5:' 64&A4' :45' ;-::5::5B' -"A5' ?-95' -'
-8 59' 6-9=B!' 4<B' 95A-C595B' 459' 45<=' 4' <"B' :;&9&:' 45'
4<B' J55"' &@5< 5B' 6& 4' 8"8:8<=' &"B8=>5"A5' 59' =5>:'
4<B' :6-==5"' &"' 45' 6&" 59!' <"B' -"' 459' 7&9:' <99&C<=' :45'
4<B' J55"' 8"<J=5' -' 6<=D"' J8' <:' 45' :;9&">' A<?5' -"'
:45' 6<:' B9&C5"' -8' &"' < A<99&<>5' -9' 6<:' 6455=5B' &"' 459'
A4<&9' 49-8>4' 45' ><9B5"' 5' A< A4' < >=&?;:5' -7' 459'
5"R- &">' @< B8AD' 48" ' @ &"' -"5' -7' 45' ;-"B:' <"B' 645"'
:8?? 59' A<?5' 459' :;&9& :' =&7 &">' 459' J-B !' :45' 6<:' <J=5'
-' ?-8" ' 459' 4-9:5' <><&"' <"B' ><==-;' 6& 4' 45' 4-8"A 5!'
-9' : 9&D5' < B559' 6& 4' < A9-::J-6 H

45' >5"59<=' ;-=& &A<=' "56:' 64&A4' 95<A45B' 459' 6<:' =5::'
5" &95=' B&:A-89<>&">' =<8B5' <?&= -"!' 64-?' =&I<J5 4'
4<B' 95: -95B' 6& 4' ">8:' <"B' (<9!' 6<:' <:' <A &C5' &"' 459'
7<C-89' <:' C45"' 45' A4<9>5B' 8;' 45' 4&=' < ' <">:&B5!' <"B'
<:' :<">8&"5' 4<' &7' ">=<"B' 6<:' 45=B' &"' A45AD!' 45'
A-8=B' <' <" ' ?-?5" ' J5' ?<: 59' -7' A- =<"B' <"B' &:' &">'
<?5:' 4&?:5=7' 6<:' &"' <;;5<9<"A5' 4-;5=5::=' ">=&:4'
45' =-">' <=D5B' -7' 5<>85' J5 655"' 4&?' <"B' =&I<S
J5 4' 6<:' <' =<:' A-?;=5 5B' 4595' 4<B' J55"' &"7&"& 5'
4<>>=&">' -C59' 45' B5 <&=:' 45' A-:' &":&: 5B' -"' <
f?8<:& 95A->"& &-"' -7' 45' &">@:' & =5' -' 45' :8AA5::&-"

K <8=5' -' <=:&">4<?!' 8"5' D&==&">' < B559!' <"B' -' ><==-;' <7 59'
& F 45' 4-8"B:' -"' 4-9:5J<AD @ _' '
@ -B!' ';9<&:5' 4&?' A-" &"8<=!' + (' *6' 43*$' $*' =* 7' (' '8=' ' *,$
"-' :5' ?5' :-' =-6' J8' 4<' ' 8.' 3 ' --' C-=' &
<J=5' -' 4<"B=5' ?' A9-::J-6' 7-9

- - - (=

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45 &"> 4&?:5=7 : --B 8;-" 45 c! i! < 5<9 64&A4 =&I<J5 4 4<B -"A5 ;9-?&:5B <"B 4<B <7 596<9B: A8 B-6" & 4 < B-8J=5 A-?;9-?&:5! =&I<J5 4 < =5"> 4 :8J:A9&J5B < J-"B 4< :45 6-8=B (B-" - 4&"> <"B <==-6 (" - 4&"> - J5 B-"5 - 45 B&?&"&:4&">! &?;<&9&">! -9 (B59->< &"> -7 <" >95< "5::4<?&>4 J5 B85 - 4&?8"=5::;9-C-D5B -" 4&:;<9 J ?<"&75: &">9< & 8B5 (@ <?5:A-":5" 5B -=-:5 < 4-8:<"B -8 -7 4&:7&C5 <"B 45 95< 48: -9B595B 6<: :&>"5B < 596&AD J A-?S ?&::&-"59: -7 45 6-A-8" 9&5: -" 45 <"B -7 8= -A=<8:5 4<B J55"&":59 5B -9 B5?<"B5B! " - < 6-9B 4<B J55" :;-D5" -" 5& 459 :&B5! &?;= &"> 45 5L&: 5"A5 -7 :8A4 < ;59:-" <: (<9 8<9 45 6<: ;95;<95B 7-9 & " :45 4<B D"-6" 79-?45 J5>&""&"> -7 (< 4< :-& 6<: -J5 <"B J57-95<" -7 45 =5 59:A-8=B 4<C5 95<A45B 459 -" 45 >95< J8:&"5:: 4< 6<:&" 4<"B! :45 <B <D5" 459 -6" ?5<:895: 45 4<B 69& 5" -(5"B-I<! 4< &" A-":5W85"A5 -7 459 :-"@: -J:&"< 5 ;59:&: 5"A5 &" 4595: ! :45 4<B 7&"<== B&:&"459& 5B 4&? (5"B-I<! :45 :<&B! ?8: D55; 459 :5A95 && D"-6" &" 9<"A5! & 6-8=B A-: 459 459 B-69 " &7 &" ">=<"B! & 6-8=B J5 459 B5: 98A &-" 8 (@95><9B&">? -95 45 &" 595: : -7 45 8"&C59:<= 489A4 4<" -7 (459 -6" 7<?&= !@ :45 4<B J5W85< 45B 459 ;9-:;5A &C 9&>4 : - 45 &"> -7 ;<&" H 45 :<?5 ;-: :JO J<B5 <>5 89>5 4&=&; -"A5 ?-95 (@ -:5 -" ">=<"B!@ "- (@ -: < =-">59 < 7=< 59&"> -7 J&=5: J =5"& &C5:!@ J8 (@ -;89>5 45 :;9&"> -7 45 ?<=&>" 48?-89 4< (@4<B 5">5"B595B 45?@ 4&: <"B -"= 4&: 6<: JO 95?5B 7-9 45 &==: -7 89-;5 -8>4 - 4<CH J55"7-==-65B =-"> J57-95! J8 & 6<: "- 5 --=<5$ 45 B&B "- &"7-9?<>5 -7 459 C&56: 7-9 45 78 895$ 45 :;-D5 <: &7 :45 4<B : &== 4-;5: -7 459 :-" :J5

K 45 %855" -7 A- : - (5"B-I<! (< . +$F+ $ 3 / --C-= C& $

:55?5A=' 9< 459' -' B5:&95' 4<' 45' :4-8=B' J5' :5&I5B' <"B' :5"' -' ;<&"'-9' <= !'<"B' 4<' =<8B5' <?&= -"' :4-8=B' >-C59"' A- =<"B' <:' 5>5" !' 64&A4' 6-8=B' 45"' J5' <' 4&=&;@:' :59C&A5'7-9' 45'&"C<:&-" H

45:5' <"B' :&?&=<9' =5 59:' -' -459'79&5"B:' ?8:'4<C5' A-"C&"A5B' =&I<J5 4'<:' :45' 95<B' 45?!' 4<' 459' A-8:&"' 6<:' "-' 5':-' :8JB85B!' 4<'<"'<?&A<J=5' <&E9<">5?5"' A-8=B' J5' C5" 895B' 6& 4' 459' 45' <::<::&"<&-"' ;=-' A<?5' -;;-9 8"5=' -' 5:'459'B&:;-:& &-"' -' 45'J- -?' 4595' 6595H ;-65978=' >9-8"B:'7-9' J5=&5C&">' 4<' 45' %855"'-7' A-:'4<B' J55"'<AW8<&" 5B' 6& 4' 45'< 5?;:' -7' -?59C&==5'<"B' <99' 45'4<B' B5"&5B'<=='D"-6=5B>5' -7'5& 459'-7' 45?H 6& 4'5L;95::&-":'-7' 45'8?-:'<J4-9S 95"A5' (-9><"' 6<:' "-6' 5==&">' 459'&"' 8"?&:<D<J=5' =<">8<>5' 4<' 4595'6<:' -' J5' <"-459'<5?;' -7' 45' <?5'D&"B' -8=B' :45'<;;9-C5' -9' 6-8=B' :45'B&:<;S ;9-C5i' '6<:'<"'<"L&-8:'W85:&-"' =&I<J5 4'B&B' "-' 5'D"-6' 45';<9 &A8=<9:' 45'4<B' <==<9B@:'"<?5!'<"B' :45'4<B' <J&"> -"@:' "<?5'' :45'4<B'=5<9"' 4<'Q' 45' Q J5<:'6<:' -' J5'95?-C5B' 4<' 9-8J=5B' 45'6-9=B'' @ H"B'7-9' 459'-6"' :<75 @:!:<D5' :45'?&>4'4<C5' -9B595B! H'<"'9< 5!' 45'<995:'-7' 45:5' 6-'?5"'' J8':45'A4-:5' -' 5"B895' 45'B<">59!' 4<' :45' ?&>4'8"9<C5=' 45' ? :59 !'<"B' 5:'459'D&":6-?<"' -' 45'J- -?

(<9' 8<9'6<:'&"' 45'48?-89' -' J5' 6-9D5B' 8;-"' 45' 6<:'5LA& 5B'J'"56'4-;5:'' :45'6<:'5L<:;59< 5B'J' B&:<;;-&" ?5"'<"B' 459' :87759&">:'<' 8 J89' =&I<S J5 4@:' =&75' =<' J5 655"' 459'<"B' 45' 49-"5' -7' ">=<"B!' <"B' <=-"5' ;95C5" 5B' 45' <4-=&A:' 5C59 64595'79-?' B5A=<9&">' &"' 459'7<C-89' 4< 5C59' J5A<?5' -7' <?5:' <7 596<9B:!' 4595'6<:' "-' W85:&-"' J8' 4<' :45' 459:5=7' C<:' 45' &?7?5B&< 5' 45&9'' <"B' A-8=B' 45' A-":;&9< -9:' 4<C5' J55"' A-" 5" 5B' -' <A' <"B' -' 98:' -' 459' <;$

(M32

;9-J< &-" <7 596<9B:! 4595 A-8=B J5 =& =5 B-8J 4< :45 6-8=B 4<C5 =--D5B =5"&5" = -" 45 A9&?5 J 64&A4 :45 ;9-7& 5B =&I<J5 4! 4<B 45 :& 8< &-" J55" 95C59:5B! 6-8=B 4<C5 5L5A8 5B 45 <::<::&": -; 9-C5 4< :45 4<B "- J55" A-""5A 5B 6& 4 45?H J8 (<9 8<9 ! <?-"> 459 ?<" A9&?5:! 6<: "5C59 7<=:5 -; 459 79&5"B:! <"B : --B 49-8>4 >--B <"B 5C&= J 4-:5 64-; 9&:D5B 45&9 =&C5: -; :59C5 459

45 (>5" =5?5"!(4-65C59! 64-; 4<B 8"B59 <D5" 45 J8:&"5::! B&B "- 755= 4&: A-"7&B5"A5 5>&A&B5! 64&A4 <; ;5<95B :-; >=-9&-8: <"B 5<: 645" 45 5L5A8 &-" 6<: B&: <" ! J5A<?5 ?-95 <>& < &">; <: 45 ?-?5" <;S ;9-<A45B 7-9 <A &-" <"B <==<9B 64-! 6& 4-8 ?5"S &-"&"> "<?5:! 4<B "-6 A-??8"&A< 5B 45 :5A95 -; &=J59 &77-9B! -=B 4&?; 4< J57-95 <" 4&"> A-8=B J5 B-"5 (45 ?8: -J <&" 45 %855"-7 A- :(4<"B <"B :5<= (-; <==-6 -7 <== 4< ?8: J5 ;9<A &:5B 7-9 459 (& 4S -8 4&: 4&: =<J-89 6<: C<&"! <"B "- 4&"> A-8=B J5 B-"5 E 5 4<B 4&?:5=7 ;9-?&:5B 4< 45 6-8=B "- 69& 5 -; 459" J8 <J&"> -" 6<: <J-8 -; ?<D5 8:5 -7 (-9><"(: &" 9-B8A &-" -; :5"B 459 <756 6-9B:! <"B &7&7-9B ?8: A-"C5 4&: =5 59 J 45 :5A95 A4<""5=

&7&J9B A<99&5B 64< <==<9B 4<B -=B 4&?; -; <=$:&">4<? <99<" : 6595 B9<6"; -8 <"B 48"> :8:S ;5"B5B -C59 <==<9B <"B <J&"> -"; &"; A<:5 45 ?<B5 < B<">59-8: ?-C5 -9 6595 79&>4 5"5B <"B < 5?; 5B -; 7= ! <"B 45 R&=- A-" &"85B -; B5C5=-;; & :5=7K&K 45 %855"-7 A- :! &"; <AD"-6=5B>?5" -7 (-9><"(:5 5&K 4<B 459:5=7 69& 5"; <756 =&"5: -7 >9<A&-8: 95A->"& &-"; -; <J&"> -" "; 95;= <"B &"; 45 "<?5 -7 4&: A-?;<=

K &=J59 &77-9B -; "=:&">4<?! O 4&==&;;: -; =:&">J<?! 8#; 8= ** $.* _ =44) * @DK@ < =44 :!) -9 + '

"&-":!' 45' =<&B' 45' B5 <&=:' -7' 45' :A45?5' J57-95' 459' <:' #
Q4&:' ?-:' B5<9' :-C595&>"!@ <"B' 95W85: 5B' 459' A-??<"B:
5' :<&B' 4<' -"' 459' J5&">' :5;<&E< 5B' 79-?' -9B' *M32
4956:J89' <"B' 9<":75995B' -' 45' A4<9>5' -7' < /6&AD5B' 8C
89&<"!' < ?595' 5&A5: 9&<"!' < ?-9 <=' 5"5?' -' 459'
(<R5: '<"B' 45' < 5:' < 4-=&A!' 45' 4<B' B5:;<&95B' -7' 4&:'
A-8" 9' <"B' 4<B' &" 5"B5B' -' =5<C5' &' 5' 4<B' J55"'
-"' 45' ;-&"' -7' B5;<9 895!' 645"' < 459' <==<9B' 45=B'
-8' 4-;5:' -' 4&?' 4<' J5 59' 4&">:' 6595' ;-::&J=5' 5'
J<B' 45957-95' B5 59?&"5B' -' 95?<&"' <"B' 6&4' 45'
4<I<9B' -7' 4&:' =&75' B-' 459' (<R5: '-"5'>--B' B< @:' :59C&A5'
5' 4<B' A-"75995B' 6&4' 4&:' 79&5"B:!' <"B!' 6&4' 45' <::&:S
<"A5' -7' 45' -9B' 5:8:!' 45' 4<B' 7-8"B' <::89<"A5' 4<'
:-?5 4&">' A-8=B' J5' <A4&5C5B' 4595' 6595' 4955' ;-&" :'
-' J5' < 5"B5B' -'' <' 4<9J-89' 6-8=B' 4<C5' -' J5' A4-:5"'
<"B' :5A&8@5B' 64595' 459' <==&5:' 79-?' <J9-<B' A-8=B' =<"B'
:45' 459:5=7' 6<:' -' J5' 95:A85B' 79-?' &9' ? <:' <8=5'
<"B' 45' 8:89;&">' A-?;5&-9' 6<:' -' J5' B&:;< A45B' -9'
45' ;597-9?<"A5' -7' 5<A4' <"B' <==' -7' 45:5!' 45' &" 5"B&">'
<A-9:' 4<B' ?<B5' <' :-=5?"' C-6!' <"B' 8;-"' Q<::89<"A5' J'
Q459' (<R5: @:' =5 59:' -' 4&?:5=7!@ 6595' 95<B' Q' -' <D5' 45'
Q :<A9<?5"' ->5 459!@ Q5& 459' -' ;95C<&=&"' 45' 489A4@:'
Q J54<=7' -9' B&5' &"' :-' 4-"-89<J=5' <"' < 5?; @ 5=<'
J5&">' B<">59-8:!' 45' 95W85: 5B' 459' -' =5' 45?' D"-6'
459' ;=5<:895' 45' "-9 459"' A-8" &5:' 6595' <=95<B'
95;<95B!' <"B' 45' 9&"A5' -7' <9?<' 6<:' <::895B' -7' <' 65=S
A-?5 95A5;&-"' <' <" '=<"B&">$;=<A5' 8;-"' 45' 5<:' A-<:!'
& 5' 4&?:5=7!' 6&4' 4' 459' <;;9-J<&-"!' ;9-;-:5B' -' ?<D5' <'
H<:4!' 6&4' <' 48"B95B' 7-==-659:!' -"' 4<9=5' Q' -9' 45'
B&:;< A4' -7' 45' 8:89;59' 79-?' 45' -J5B&5"A5' -7' 64-?'
45' 6595' J' 45' 5LA-??8"&A< &-"' -7' 4&:' -=&"5:'
?<B5' 7955!' 4595' 6595' :&L' "-J=5' >5" =5?5"' 4&:' ;9&C< 5'
Q79&5"B:!' 64-' 7-9' 45' I5<=' 45' J-95' -' 45' A<8:5' <"B

*M32 &&

459 (<R5: :59C&A5! 6595 95<B - 8"B59 <D5 4< 9<>&A<= 5L5A8 &-"!H

45$&" 595: >9566 B55;59 <J&"> -"=5 59 6<: >&C5"&?? 5B&< 5= -&77-9B &6<:5L<?&"5B J <=$:&">4<?J57-95 &=57 -"B-"! <"B 6<:7-96<9B5B J 45 8:8<=9-<B <"B 4&==&;;:! 64-4<B J55"&"-"B-" <"B4<B 4595 B5A&;4595B&!95 89"5B -<8=5<4<9 $ =5 -6< A4 45 5775A: (<9 8<9 D"56 4&==&;;: J :&>4 <:;<95! ;-AD?<9D5B! &?;<::&C5! 95B$4<&95B ?<"! :-?5 4&">-C59 4&9 45 4<B J55"<=95<B $: 98AD J 4&:<;;5<9<"A5 (-9><"4<B :8>>5: 5B 4< 45 ?&>4 "-J5 ;9--7 <><&":<J9&J5 45 4<B 9&5B 4&?>5" = <"B 6& 4-8 :8AA5::! J8 :45 4<B "-;<&$ &A8=<9 :8:;&A-"-7 4&? 5 D"56 45 ?-?5" 645" 45 =5 59 95<A45B 459 5 D"56 4< :45 4<B 95<B & 45":45 B9-C5 -8 &" 459 A<99&<>5 <7 596<9B: :45 ;<::5B 4&?<"B 45 J-65B 95:;5A 78==

? 4<B<:?&=&">A-8" 5"<"A5!@ 45 :<&B! J8 4-8>4 -7 45 C59:5_

? 8?&J&B&A& C5 &A8<J J-:5 A<C5@

-?5 95?-9:5 45 A-8=B "-A4--:5 J8 755=45 6< &"4&:-&=:!! <"B 45 6<:--A59 <&" 4< :45 6-8=B JH ?5:45B&" 45? "-459=5 5979-?459<"B 45 6-9D 6-8=B J5 B-"5

5< 5"B!@ 45 69-5! 459 C59 45<9<45 "5L @H <8&5 4<B =5::5=7$A-??<"B 5 ;9-J<J=&D5f& &== 45 6-9D 4< 45 6<:<J-8 645" 45 7-8"B 45 89&@ 64&A4 & 4<B <D5" 4595 4<B J55" <A-":A&-8:"5:: &" 4&: ?<""59 64&A4 :45 4<B -J:59C5B! <"B :45 4<H

1 " 4-" <J&"> -" -45%855" -7 A-:! 8= *.$.. _ =44 ( ) ! / - + 45 B5A&;459 6<:<7596<9B::8J?& 5B -<J&">S -" 4&?:5=7! <"B 45 69-5 8;-" &! 4&: &: <985 A-; -7 45 =5 59 64&A4 :5" - 45 %855" -7

A-: &:<&?;-::&J=5 -;955 H 45957-95 4< 45 %855< -7 A-H k 6< &"7-9?5B -"= -7 <" &" 5"B5B 95J5=&-"! <"B 4< 45 ;=-7-9< : -::&"< =-" k 6< A-"A5<=5B 79-?459$ V 4&==&;;: -<:&"><4<?! 8=j *1$.1 _ =44 :!)

75=' C<>85' 8"5<:&"5::' <J-8' 4&?' 45' 4<B' ?<B5' <BS
C<"A5:' -' 4&?!' -' 64&A4' 45' 4<B' "-' 95:;-"B5B' 45'
4<B' 75<95B' 4<' &7' 45' %855"' 6<:' D&==5B' &' ?&>4' >-'
4<9B' $6& 4' 459' &7' :45' 6<:' :&==' &"' 4&:' 4<"B:!' <"B' J57-95'
<J&"> -"@:' =5 59' A<?5!' :45' 4<B' 69& 5"' -' 45' 9A4S
J&:4-;' -7' =<:>-6!' J&BB&">' 4&?' <:D' &9' B6<9B' <77-9B'
-' &" 59A5B5' CB 4' 89>4=5' -' ;9-C&B5' 459' C& 4' <"- 459'
>8<9B&<"!' J5 59' &"A=&"5B' -' 459' <"B' 459' 9&>4 :' <7 59' 45'
B5< 4' -7' 4&:' ?&: 95::' H' <77-9B' :45' D"56' -' J5' 459'
79&5"B' 89>4=5' :45' 4-8>4!' <"B' R8: =' 4-8>4!'
6&:45B' 65==' -' 459' @ -8' :55!@ 69- 5' 4&==&;;:!' A-?S
?5" &">' -"' 459' 6-9B:' -' <=:&">4<?!' @ 4-6' :45' &:'
@ 65<9' -7' 459' D55;59' 45' &:' C59' J-=B' -' ?<D5' 6<' -'
@ 45' >95<' ;59:-"<>5!' <"B' 75<9' 45' 6&==' J5' --' 7-96<9B'
@ &"' :< &:7 &">' 459' 7-9' 459' A4<">5' &==' 45' :55' <J&"> -"@:'
@ 95<:-": @H' 45:5' 6-9B:' <95' 8"5LA5;&-"<J=5 5C&B5"A5'
&"' 89>4=5 @:' 7<C-89' 4<' 45' <' =5<:' 6<:' "-' ;<9' -' <"'
P"7<&9' A-":;&9<A' <><&":' 459!' <"B' 6<:' &"' "-' 48?-89' -'
-=59< 5' 7-8=' ;=<
<=:&">4<?' 6<:' :&==' &"' >95<' 8"A59 <&"' <==<9B!'
8;;-:&">' &77-9B' -' D"-6' ?-95' 4<"' 45' B&B!' <=D5B' -'
4&?' C& 4' A-":&B59<J=5' 8"95:59C5' &77-9B' 4<B' >< 4595B'
4<' 4&:' <"B' <J&"> -"@:' <AA-?;=&A5:' 6595';59:-":' "5<9'
<J-8' 45' %855"' 45' 6595' 7-==-65B' <' "&>4' &7' 45'
5"' <J9-<B!' <"B' 45&9' 4-8:5:' 6< A45B' -' B&:A-C59' J'
4-?' 45' 6595' C&:& 5B' 45' >9-8;' -7' 9<& -9:' 6<:'
-=59<J=' 65==' <:A59 <&"5B!' J8' "-4&">' B57&"& 5' A-8=B' J5'
;9-C5B' <:' 5' <><&":' <" ' &"B&C&B8<= O' <J&"> -"' ;95$&

K@ 5' 95"B5' <8' 95: 5' 7-9' &":--5" ' ?5:?5?5" ' :& A5: 5' - "5' 95"-&' <
2"' -8:' :5:' B5;<9 5?5" :' C59:' ?- ' 7<&=&9@_ ' + (' *6' 43*$' $*' $ '
4-""5I' <BC&:' B5' A5A' <8' >&K<"B' 9`S 3 :! *B' *6' 8' 7*-' 8= ' *.$..'
:-9&59';<9=@ ?J<::<B589' <77-9B!' 5' _ =44' (') ! /' -' + '
<&5`:' =8' 95?-": 959' <"' B5' ?< K 4&=&;:' -' #<:&">4<?!' 8= '
;<9' W85' B5' -8:' ?5:';<95":' 5' <?&5:' *N$.N _ =44' :!)
C&5' "5';-8C-&9' 5: 95' :5895' 5"' =< O 5A95' " 5==&>5"A5!' 8=' *M32'
77<9B5' 5' ?<&":' B5' ?-"' B&' ><9B&5"! _ &=7j E' 5*. $!3

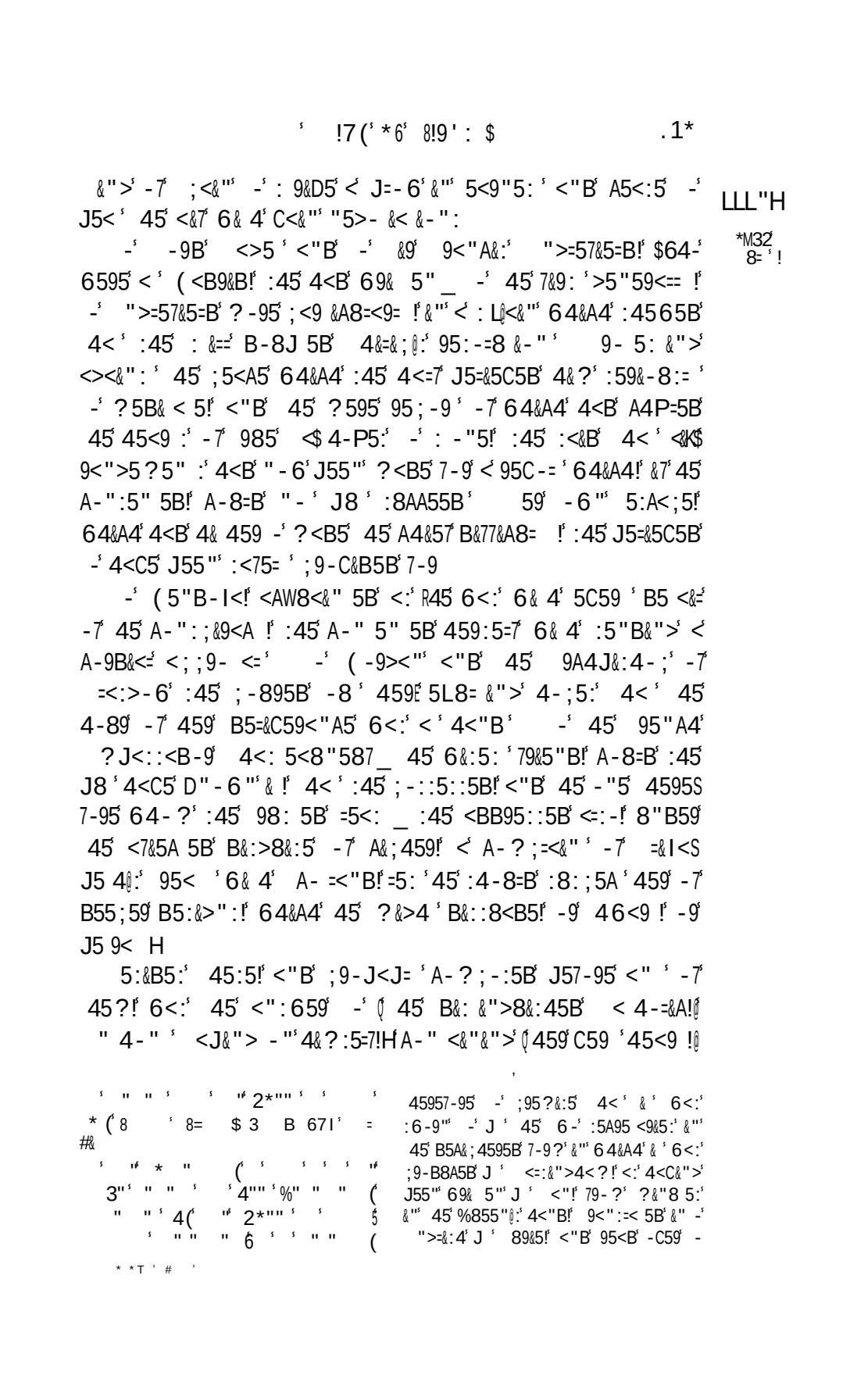
#
*M32
8=

$ 8=

:5" = B&:<; ;5<95B <: ; ! ;594<;: &77-9B 4&?:5=7! <:A59 <&"5B 4< 45 4<B >-"5 7-9 < 655D -4&: 4-8:5 &" 59J :4&95! <"B 4< 45 5L;5A 5B -95A5&C5 45 %855" -7 A- : <":659 -4&: =5 59 < &A47&5=B

A<?5 < =<: 45 6<: 7&C5 B< : A-?;-:&">459 95;= ! 6& 4 45 ?<" - 459 =5 59: 64&A4 :45 B&:S ;< A45B J 45 :<?5 ;-:

45 A-"75::&-": -7 459 :5A95 Y9&5: B5:A9&J5 4a ?-B5 &" 64&A4 :45 6-L D5B - <;<;59 -7<" A-":5W85"A5 6<: 5C59 69& 5" J 45?! 5LA5; &" 459 A<J&"5 <"B &"! 459 ;95:5"A5 45 :<5 < < <J=5 C&4 <8<"B 89&5 -;;-:& 5 -459 45 5& 459 69- 5 459:5=7 -9 B&A < 5B &" 95"A4 -<8 45 :8J: <"A5 -7 64< !:45 B5:&95B -:< <8 --D B-6" 459 6-9B:! <"B :45 =--D5B 45?-C59! <"B <;;9-C5B -9 <= 595B <: 45 A<:5 ?&>4 J5 5 45" A<: 45?&" -7-9?' :45 95<B 4&: B9<7 ! <"B 45" &7 45 =5 59 6<: -95?<&" &" 95"A4! & 6<: A&;4595B <"B :5<=5B J 459:5=7 7 & 6<: -J5 &" ">=&:4! & 6<: 9<":=< 5B J 89&5! <"B <><&" 95<B -459 <"B A&;4595B - <B&:;<A4 -7<" D&"B 6<: 5C59 :5" -8 64&A4 4<B "- J55" A-?;-:5B! A&;4595B! 95<B C&A5 -9 49&A5! <"B 45" :5<=5B 5& 459 6& 4 459 -6" 4<"B -9 J57-95 459 5 5: H -9 7&C5 B< : :45 6<: 48: <6-9D! J57-95 45 ;<AD5 6<: &" 4&==&;;:! 4<"B: 64&A4 A-" <&"5B 45=5 59 4< 45 6<: =--D&">7-9 6<: 4&AD <"B 45 A&;459: 6595 ?<" <"B C-=8?&"-8: 45 4<B 69& 5" -4<9=5: <>5 ! -J:59C&"> 45 :<?5 A<8 &-" <: 4&?:5=7 <J-8 "<?5:! J8 5==&"> 4&?4<<B&: &">8&:45B <4-=&A 4<B A-":8=5B 459 B&! !< ?-C5?5" 4< C<: -J5 ?<B5 &" 459 7<C-89 4a :<&B 4< :45 4<B <":6595B 4&?; -&" J ; -&" 45 4<B &": 98A 5B 4&?4-6 45 6<: -;9-A55B &" ">=<"B! <"B C4< 45 6<: -=--D 7-9 79-?<J9-<B -6 &7 5C59! :45 :<&B! C<: 45 &?5 7-9 45 -;5 <"B 45



.1. ! $* 2 * 6 (78' ()

- - -(=

<: 4&==&; ; : 5L;5A 5B 4< & E06-8=B <J&"> -" 4<B 069& <" - 459 <: 4&: -C595&>" 4H <BB95::5B 4&?' &"

*M32

459:5=7 <"B <; ;9-C5B 4 459 &" 45 8:8=6< J57-95 &6<: A&;4595BK 45 A4<==5">5B 45 ;9-B8A &-" -7 459 <8 ->9<;R&E 4<B! -7A-89:5 "5C59 k >-"5 J5 -"B 459 -6" 9--?! <"B & !A-8=B "- J5 7-8"B 8 <8@< ?&"8 5:-7 & 6595 7-8"B 45 =5 759 & :5=7 6<: <AD"-6=5B>5B J <J&">S -"! <: 45 :<?5 64&A4 45 95A5&C5B &" A&;459 4&==&; ; :@: A-; -7 45 A&;459 6<: 5L<?&"5B J 45 9&C -8"A&=! <"B 45 B5A&;459 C59&7&5B : &=6 J5<9:8;-" & 45 :&>"< 895:-7 45 "-J=5?5" J 64-?' & 6<: 5L<?&"5B 45 -9&>&"<6 A&;459 4<C&">6 J55" ;<::5B -" - <J&"> -" 6<: "5C59 95A-C595B " <"B 9&"A5 k <J<"-&7! 64-:5 A4&C<=9 & &" J54<=7 -7 (<9 8<9 :55: 98 4 &" 5C59 6-9B :45 :;-D5 459:5=7 <"B 79<8B <"B 7-9>59 &" 5C59 A4<9>5 <==5>5B <><&": 459! A-":&B59: 4< 45 A-?$;9-?&:&">:5" 5"A5:6595&" 59;-=< 5B J 4&==&; ; : J57-95 & =57 4<9 =5 45 7-9>59 6<: >9< 8& -8:&7 7-9>59 4595 6<:! 7-9 45 >5"8&"5"5:-7 <J&"> -"@: -6" =5 59 &"7-9?&">6 459 4< 45 <::<::&"< &-" 6<: &"S 5"B5B &: "5& 459 W85: &-"<J=5 "-9! W85: &-"5B! <"B :8A4 ;<9 : -7 459 95;= <: 9&"A5 <J<"-77 <B?& : - J5 459 -6"! A- <&" < 78== >5"59<= <;;9-J< &-" -7 4&: &" 5"B5B ;9-A55BS &">: " <"B "- ;9-4&J& &-" -7! <"B 45957-95 < <A& A-":5" -! 45 ?89B59 45 <9>8?5" : -" 64&A4 9&"A5 <J<"-77 95=&5: <95 4955

&9: 4< 45 -9&>&"<6 A&;4595B =5 59 6<: "- :5" - "A5 =&D5 45 95: ! 48 6<: <D5" J 4&==&; ; : - "B- " - <=:$" &">4<?

5A-"B= 4< & 6<: B5 <&"5B 5=5C5" B< : J57-95 & 6<: &" <J&">$ -"@ 4<"B:! ;95:8?<J= 6& 4 < B&:S 4-"5: &" 5" &-"

4&9B= ! 4< 45 &" 59;-=< &-" A<" J5 ;9-C5B 79-?<A-"78:5B ;-: S :A9&; -" < :5;<9< 5 ;&5A5 -7 ;<;59! B&: &#595B J (9 =59 &9& 45 < 5 <;59 &&&A5 * 45 9&"A5! A-"A5&C5: =4< J&P&; ; :&" 5"B5B 7&9: - ?<D5 < ?595 <BB&-"! 4< 45 A4<">5B 4&: ?&"B! <"B 95A-?;-:5B <7 596<9B: 45 5" &95=5 59! 4< &6<: B5 <&"5B 7-9 4< ;89;-:5! <"B 4< <= 4-8>4 -"5 -7 45 ?-: B5L 59-8: ?<"&;8S =< -9: -7 A&;459 &" 89-;5! 45 B&B 4&: 6-9D : -A=8?:&= 4< & A<" 45 :55" 49-8>4 6& 4 5<:5 J < A9& &A -7 45 "&"5 55" 4 A5" 89

5& 459 7<A "-9 &"7595"A5 <95 A-995A

&9: 45 -9&>&"<6 =5 59 6<: "- B5 <&"5B! J8 6<:! 7-96<9B5B &" 45 8:8=6< 45 B< <7 59 & A<?5 &" 4&==&; ; :@:4<"B <=:&">4<?&"B55B -=B 4&?' -J9&">& -" -"B-"! J8 --" =< 5 -" ;95C5" & :B5;<9 895$ 4&==&; ; : J<B & -" 45 5C5"&"> -7 45 &3 4$.3 4 -7 8= " 45 &N 4$.N 4 45 69-5 -" <=:&">4<&P !!E 4< &7 <J&"> -" 6<: &" 45 A-8" 9 45 -9&H"<6-8=B J5 A-"S C5 5B &" -" 4&:4<"B: @ 4<B J55P ;C5" -" @ ?&=&-@ -" <D5 -" 4&&8 < &A47&5=B! <"B 6<: 5C&B5" = <=S 95<B >-"5 7-9 4&==&; ; : 95A-?S ?5"B5B <=:&">4<?' -" 4<C5 <$ J&"> -"@: 4-8:5 A<9578== :5<9A45B! J5&">:895 4< 45 =5 59 6-8=B 45 D5; !<"B @ 6&:4&">& -" J57-8"B *$ <" 5C&B5"A5 <><&": 459 @_ R !88!BB $* '8!(7 '!$! 8= *N$.N =44D

( ) ! / - + '

&: 985 4< E <J&"> -" B&B "- 95A5&C5 & 7-9 5=5C5" B< :! J8 &" :5A-"B =5 59 - 45 %855" -7 A- A

89"' <:' 98: ' <"B' 65=' J5=-C5Bj' 45' <; ;=<8B5B' 4&:' I5<=' &"' 45$A<8:5' -7' 459:5=7' <"B' 45' 489A4' 45' J<B5' 4&?' 65&>4' 65=' 4&:' 95:-89A5:!' A<=A8=< 5' 45' "8?J59:' 0 4<' 45' A-8=B' J9&">' &" -' 45' 7&5=B!' 45'H-6":' 4< E 45' A-8=B' ><&"' ;-::5::&-"' -7!' 45' :8AA-89:' -"' 64&A4'E45' A-8=B' 95=' 79-?' <J9-<B' 45' <BC&:5B' 4<' 45' < 4;=&A:' :4-8=B$ J5' -=B' 5C59 64595' -' A-==5A' <9?:' ;9&C< 5= !' <:E &7' -' B5H 0 75"B' 45?:5=C5:' Y><&"4' :-?5'&" 5"B5B' C&-=5"A5!' <"B' 45E J<15' <J&"> -"' =5<9"''79-H' (5"B-I< 645"' 45=;' ?&>4' J5' =--D5B' 7-9!' <"BH &?5' 4&:' ?-C5?5" :' <AA-9B&">=

0 45"'<=='&:'&K5<B !@ :45' 45"'A-" &"85B!' 0 45' :&L'>5"$ K0 =5?5"' ?8:' J5' :5' -' 6-9D!' <"B' -8' 6&==' ;9-C&B5' 4<' 0 -"' 45&9' B5:&>"' J5&">' <AA-?;=&:45B!' ' ?<' J5' ? :5=7' 0 95:A85B' 79-?' 4&:' ;=<A5!' <"B' J5' &"' :<75' D55;&">' &==' -89' 0 7&E&5"B:' <99&C5' ' 6&==' J5' 4<9B' -' 7&L' <' B<' 7-9' 45' 0 5L5A8 &-"' -8' ?8:' 4<C5' <' ;<9 ' 45957-95' &"' 95<B&$$ 0 "5:' -'A<99 ' ?5-77' "B' -8' 6&==' D55;' 7-89' ?5"' 6& 4

=&5' 4&?:5=7' 5L;=<&"5B' 45' 95<:-" 0 -89' =5 59!@ 45' :< :! 0 ' 95A5&C5B' -' &==' 45' <> 4'-7' 8=' 8>' 3w 45' A<8:5' 6<:' ?' <J:5"A5' 79-?' &&A47&5=B!' A-" 9<9' -' ;9-?&:5@_ S 4':!(66$*('$*'$ ' + (' *6'43*$' 8> F$*F' =44' :!)

45' <&E>8 "5"' 79-?' 45' ;-: :A9&;' &'&:'8"J5A-?&">' -'A<==';95;-: 59-8:!' 5'&'&:'4<9B' -':" '64<' -459' "<?5' -'>&C5'&!'7-9'&'&?;=&5:' 4<' 4&==&;:' ;95:59C5B!' 5"B-9:5B!' <"B' ;=<A5B' <?-">' 45' ;<;59:' -'J5'5L<?&"5B'J' 45' 9&C' -8"A&=' 4&:' -6"' 7&9:' B9<7'-7'<7-9>59 !' 64&A4' 45' 95R5A 5B' <:' 8":8& 5B' -' 4&:' ;8&$;-:5!' '"-5' 79-?' 89&5' -' 0 ?&=&-'@ 5L;=<&":' 45' 9:59' -?5'0<BB&&-"@' -' 45'=5 S 59' 4<B' J55"' :5" 'J' ?&:<D5' '4<B' 59;=5L5B' ?&=&-!' 64-'4<B' 69& 5"' -' D"-6' 64<'&'6<:' <"B' 64<' 45' H<:' -'B-'6& 4'&' 89&5' <":6595B! ' B-8J' J' -89' 7-L$?59!' 64&A4' 7-8"B':-&"5' B&&7&ALB '&"' B5A&;459&">!' 4<' ? :5=7' 4<C5' 5995B' &"' :5 &">' B-6"' $ '))!$!*(' 64&A4' ':5" 'RE-8' 49-8>4' :-?5' 4<:5' ' 4<B' 45"' &"' B&:;<A4&">' 4595-7' ' ;9<' -8' 7-9J5<9'8:&">' 45' :<&B' <BB&&-"' 8" &=' 4<' <>&":' 45' "5L' $;8' 45' 64-=5'<'?-95'=5&:895'&"' J5 59'-9B59' 7-9' -89' >95<59' 5<:5' <"B' ?&"5@_' W8' $*' .!$!*' 8=' .3$ 8>',' =44' :!)

89&5'6<:'J' 4<' &?5'<6<95' 4<' <J&"> -"' 4<B"-' J55"' <7 &A47&5=B!' <"B' 45957-95' :8;;-:5B'9&>4=' 4<' 45'=5 59'6<:' :&=='&"' ?&=&-@:' D55;S &">' &:'B5:A&&;&-"' <;;=&5:' 5L<A=' -' 45' 0 ;-: :A9&;!@ 64&A4' 7-9?:' 9&"A5' <J<"-7 :' 5L' ' &:'<?-">' 45' -459' B-A8?5" :' -7' 45' A-":;&S 9<A !' <"B' &:' 5"B-9:5B' J' 4&==&;:' 4&?:5=7!' 0 ' ' -7' 45' ' %855"E:' =5 59' -' <J&"> -"@

*M32 8=

4-9:5: :<BB=5B! -J9&">6-9B 645"45B55B&:B-"5!
4< 45 ?< J5 4595 J57-95 ? >8<9B&<"=5<9":-7
& ;95C5" <AA&B5" ! =5 45 4-9:5?5"A4--:5$
B&77595" 9-8 5:! 4< &7 -"5&:&" 59A5; 5B<"-459 ?<
>5 49-8>4 6&==J5 65==<:-<4<C5 45A-??-"
;-: :<"B A-89&59: : -;;5B &C5 45 >5" =5?5"
<P 45 <::89<"A5: 64&A4 45R@ 95W8&95 -" ? ;<9
-8 6&==A-":&B59<"B A-":8= ->5 459 645 459&7! <:
&: ;-::&J=5! 45 A<""-5L5A8 5 45&9 ;<9 &A8=<9 ;89$
;-:5!& 6&== 45"J5 5L;5B&5" -;9-A55B$6& 4 45 95:
-7 45 5" 59;9&:5 7 45 B&77&A8= J5-"= 6& 4?R@H:57H
&7 -8 A<""-?<"<>5 ? -6" 95:A85 J5A<8:5 <?&"
45 -659! -9&":-?5- 459;=<A5 --: 9-">7-9 -8!
B-"-45:& <5-" 4<<AA-8" -"7-9 45 4-"-89
-7 -B 6-8=B >=<B= B&5<<" &?5 A-8=B J8
D"-6 4< 45 < 4-=&A: 6595 -8 -7 J-"&B<>5 6&==
B-64< A<" -9<&:5 A- =<"B <"B 95=<"B 56<95
-7 9<& -9: 4595 <95 5C5"; 9&5: :&" 45 :59C&A5 -7
45 5"5? 55;"-A-?;9-?&:&">;<;59:<J-8 -8!
<"B 95C5<=<:=& =5 -7 -89&" 5" &-":<: -8 A<" -
45 95"A4 ?J<::<B-9 5&:<>--B ?<" J8 4&:
?<: 59 &: --"5<9= <==&5B 6& 4 4&: %855" <"B ?<
A9-::-89;89;-:5
45&@5 <95 4955 6< <&" 64&A4 ? 5:A<;5 ?< J5
?<"<>5B! 9&B5 :-?5&?5:&" 45 -;5" >9-8"B J5K
655" 4&: <"B <77-9B &: 8:8<== <" 5" &95 :-=&$
8B5! <"B ? >8<9B&<" 64-< 5"B:? 5 <D5: J8
5&>4 55" -9 65" 4-9:5 6& 4 4&?! -"= <9?5B 6& 4
;&: -=: 5 A-8=B <99<">5 <B< !<"B 7&7 -9 :&L
65==?-8" 5B ?5" A-8=B A<99 ?5 -77 6& 4 5<:5
9 -8 ?&>4 7&95 45 : <J=5: <"B 7<9?$J8&=B&">H
4595 :-?5 ?&B"&>4 !<"B -89 ;5-;=5 ?&>4 :8WR9&:O
45 4-8:5&" 45 A-"78:&-" 45 ?&>4 65<9 < J<B>fH
-95A->"&:5 5<A4 - 459

Q &@ <><&"!' A<9 :' A-?5' &"' 4595' 5C59 ' ?-9"&">' 6& 4'0
Q: -95:' -8' ?&>4 ' ;59:-"< 5' <' B9&C59!' <"B' 8;:5 ' -"5'
Q-7' 45' A<9 :' &"' 45' >7& 56< ' <"B' 45' 95:' -7' -8' RB">'
QA-"A5<=5B' <?-">' 45' J8:45:' ?&>4 ' 98:4' &"' 45'
Q>8<9B@:' =-B>&">:' <95' 4<=7' <' ?&=5' -
Q 8&E"' 4&:' &? ?5B&< 5= @H
' ;-: :A9&;' H<BB:' Q ' 6-8=B' J5' >=<B' -' D"-6' 45'
j "<?5:' <"B' W8<=& &5:' -7' 45' :&L' >5" =5?5"' 64&A4'
0<95' -' <AA-?;=&:4' 45' B5:&>"?5"!' 7-9' 4<' &' ?<'
QJ5' ' :4<=' J5' <J=5' 8;-"' D"-6=5B>5' -7' 45' ;<9 &5:' -'
Q>&C5' -8' :-?5'789 459' <BC&A5' "5A5::<9 ' -' J5'7-=-65B'
Q 4595&"' '()' L (' *')*' ' -! '$*:' . ')''3\+'!($)'
Q -!$'$ '('. '*6''88' +3' B !(3!B'8'B *(1''' '8*'-*'
Q:''8 ')2'' '8*'-*':1_ <:'<=:-'79-?' &?5' -' &?5'
Q;<9 &A8=<9=' 4-6' -8' ;9-A55B!' <"B' <:' :--"' <:' -8'
Q?<!'7-9' 45' :<?5' ;89;-:5!' 64-' J5' <=95<B !' <"B' 4-6'
Q7<9' 5C59 ' -"5' &:' ;9&C ' 45958" - @
7' 4&:'=5 59' 6<:' 45' >5"8&"5' 6-9D' -7' (<9 ' 8<9 !'
7<" ' ;<9 ' -7' &' E6<:' 459:_ :8;;-:&">' 459' -' 4<C5' 95S
A5&C5B' <"B' 95<B' 45'=5 59' -7' <J&"> -"' -' 64&A4' &' 6<:'
H"' <":659_ 4&==&;;:!' -"' :5"B&">' 45' B5A&;459' -' <=$'
:&">4<?!' 6<:'9&>4' &"' :<&">' 4<' 45' 4<B' "-6' ?<59&<='
877&A&5" !' 4<' 4595' 6<:' "-' "55B' -'98"' 789 459'9&:D!' <"B'
4<' &' 6-8=B' J5' 65==' -' :5A895' 45' ;9&"A&;AB' A-":;&9<-9:'
<' -"A5' &:' -"=' <"L&5 ' 6<:' 4<' 45' -9&>&"<=' =5 59'
:4-8=B' J5' 95A-C595B' <J&"> -"!' 45' 4-8>4 !' Q7-9' <==
Q459' A-??<"B?5" !@ 6-8=B' "-' B5: 9-' &!' <"B' 45' 6&:45B'
' Q -' J5' 7-8"B' <:' <"' 5C&B5"A5' <><&":' 45' %855"' -7' A-:!

K 45' %855"' -7' A-:' -' " 4-" ' :A9&;!' :< :!
J<J&"> -"!' 8=' *,$.,' -"B5":5B Q @5:' =<' A-;&5' B5:' =5 95:' B5' =<'
R !($)':'23 / - 'C-='C&' 45' 5 "5'B@ :A-::5'B59"&a95?5"' d' ?-'
=5 59' &:' &"' 95"A4!' <"B' 6<:' <;;<$' 5"C- `:@
75"=' &"' 6-' ;<9 :' 89&5' 69&&">' K 4&:' &:' 45' B-A8?5"' -"' 64&A4'
-' ?&=&-!' 5==:' 4&?' -' B5=&C59' 45' 9&"A5' <J<"-77' <9>85:
6-'=5 59:' <J&"> -"' <AD"-6=5B>S K 45' 6-9B:' &"' &<=&:' <95' " 0F'
&">' 45'A-995A "5::'-7' 4&==&;;:@:' 9<"$ 49-8>4' $77& 4'<';5"

LLL&

*M32
8=

Q &7 & ;=5<:5B -B -& ": ;&95 459 (<R5: C& 4 4<
Q 459-&A<= A-89<-75 4< 6<: ?55 7-9 <C5">5 -7 -B@:
Q A<8:5 <"B 45 :5A89& -7 459:5=7<"B 45 < 5 @H
45 %855"" -7 A- : 6<: 45 C&A &?-7 95<A459 _ :-
& 4<: J55"" -7 5"" :<&B! <"B :-& 6&== J5 :<&B <><&" _ <"B
&7 J 95<A459 & &: ?5<" 4< :45 6<: B5A5&C5B 45
A4<9>5 &: R8: 8 & &: 7<=:5! <J:-=8 5= <"B 8 59= !
4< 45 ;=- 6<: :5 -"7-- J <>5" :-7 <=:&">4<?- 5? ; 459 -R-&"& &"" 459 B5: ;59<&-"!<"B 45"" -B5S
: 9- 459 <=:&">4<?- 4<B A-" 9&C5B <"" &">5"&-8:
:A45?5 -><&"" ; -=& &A<= &"7-9?<&-" 5 -J <&"5B CH4<
45 :-8>4 ! <"B 45 -J <&"5B <=:- J <AA&B5" 45 D"-6S
=5B>5 E-7 <A-": ;&9<A -6 4&A4 :45 6<: <; <9 = 8
45 6<: <=--D59 -"" <"B "-4&">J5:&B5: =&I<J5 4@:
?89B59 6<: 4a 7<C-89& 5 ;9-R5A -7 45 5:8&:
45 ;<9 &A8=<9 ?-?5" 645"" 45 A-995:;-"B5"A5-7 45
%855"" -7 A- : 6<: ;<::&">8"B59 4&: 5 5:! & 4<;;5"5B
-9&;5"" -6<9B:<A &-"

45 95< ?5" 64&A4 (<9 8<9 4<B 95A5&C5B < =&S
I<J5 4@: 4<"B: &: :<&B -5LA8:5 &7 "- -R8: &7 459$
: :45 -=B 459 : -9 459:5=7& B&B 5LA8:5 459 -?&">
&" - "><="B -7 459 -6"" <AA-9B! 4<C&"> J55"" ;9-?&:5B
65=A-?5 <"B 45=; 4595! :45 4<B J55"" B5;9&C5B -7 45 E
=&J59 7-9 5&>4 55"" 5<9:! <"B 459 [<?5 4<B J55[
J=<AD5"5B 6& 4 A<=8?" 45 4<B J55"" <" <=&:5B 6& 4
4-;5: -7 95=5<:5! -"= 645"" 45 A8;6<: < 459 =&;:! $*
:55 & :"< A45B <6< <: &7 &"" ;89;-:5B ?-AD59 4H
4<B J55"" 95< 5B <: < A9&?&"<= <"B 495< 5"5B 6& 4
B5< 4 45 4<B J55"" :5;<9< 5B 79-?459 A4&=B &H
<775A &-"" 4<B J55"" : -=5"" 79-?459! <"B 45 "<?5 %1
?-459 J5: -65B 8;-"" 459 -;;95::-9E "B &7 45 95E
7&"5?5" :-7 A985= J5 9< 5B < =: <?<BB5"5B 6-?<H

H 4&==&;;: -<=:&">4<?! 8= *N$.N ; 2)! / *6
+

&" -' B5: ;59< 5' A-89:5:!' :45' &:' 45=B' -' 4<C5' < A=<&?' 7-9'
<AW8& <=' 79-?' 45' ?-9<=' &": &"A :' -7' ?<"D&"B
=&I<J5 4' 4<B' A59&&<&"=' A-" 9&C5B' -' ?<D5' :8A4' < *M32
95;95:5" < &-"' -7' 45' A<:5' ;-::&J=5' "' 45' B95<B' -7' 8=
:55?&">' -' :<"A &-"' 45' 95J5==&-"' -7' :8JR5A :' <><&":'
45&9' :-C595&>"!' :45' 4<B' B&:95><9B5B' 45' <BC&A5' -7' 459'
?&"&: 59:!' <"B' 4<B' 8:5B' =<">8<>5' -"' 45' 7<& 4' -7' 64&A4'
45' %855"' -7' A-:' A<?5' -' ">=<"B!' <"B' 6<:' "-' ;59S
?& 5B' <><&"' -' =5<C5'& ' "' 45' A9--D5B' 6< :' &"' 64&A4'
:45' :-' ?8A4' B5=&>4 5B' :45' 4<B' ?-95' 4<"' -"A5' ;=< 5B'
459' -77' <><&":' 459' :-"!' <"B' 7-9' 459' -6"' ;89;-:5:!' 4<B'
45=B' 45' :8AA5::&-"' -' 45' 9-6"' 8"B5 59?&"5B!' <"B'
4<B' <?8:5B' (<9' 8<9' 6& 4' 45' ;9-:;5A' -7'&
8' &7'&' J5' <D5"' <:' < 64-=5!' <"B' =--D5B' <' 79-?'
7&9:' -' =<: !' 45' 7<8=' -7' =&I<J5 4@:' A-"B8A' -' 459' 8"S
=8AD' D&":6-?<"' 6<:' 65<D"5::_ 65<D"5::' ;59:5C595B'
&"' B5:;& 5' -7' 95?-": 9<"A5!' -8' -7' <"' 5L<>>59< 5B' 75<9'
-7' J5&">' 95;9-<A45B' 7-9' B5<=&">' ?-95' 4<9B=' 6& 4' 459'
E&C<=' <"B' 45&9' 4<"' :45' 4<B' 459:5=7' J55"' B5<=' 6& 4' J'
459' -6"' :&: 59
=&I<J5 4' A-?&">' -' 45' 49-"5' 459:5=7' 6& 4' <' : <&"'
P;-"' 459' J&9 4!' 4<B' 7-8"B' 45' =5-;<9B:' -7' ">=<"B'
W8<9 595B' 6& 4' 45' @=&=&5:' -7' 9<"A5!@ <"B' < 95"A4'
<9?' ?<D&">' A-=<"B' <' 5;;&">$: -"5' -6<9B:' 7-9A&J='
B&:;-::5::&">' 459' -7' 459' A9-6"' 45' 4<B' :8AA5::78==' '
<::59 5B' 459' 9&>4 :' 45' 95"A4';=5"&;-5" &<9&5:' <' 45'
<;& 8=<&-"' -7' 5& 4' :8995"B595B' &"' (<9' 8<9 @:' "<?5'
45' A=<&?:' 64&A4' :45' 4<B' <BC<"A5B' (<9' 8<9' 4<B'
7&9:' B5=< 5B' <"B' 45"' 9578:5B' -' 9< &7' 45' 95<' :<C5'
-"' "56' A-"B& &-":!' 64&A4' :45' 4<B' "-' 9&>4' -' B5?<"B'
45' 4<B' 95?<&"5B' <7 59' 459' 95 89"' -' A-=<"B' <' W8<:&$
A-?;5& -9' 7-9' =&I<J5 4@:' 49-"5' 45' 4<B' &" 9&>85B'
HC&4' 45' B&:<775A 5B' <4-=&A:' &"' ">=<"B!' <"B' 6& 4' 45'
;<"&:4' ?J<::<B-9:' &"' -"B-"' 45' 4<B' A4-:5"' 7-9

LLL&C

C <
8=

E459 48:J<"B < < 4-=&A :8JR5A -7 =&I<J5 4! < =d"A5 -7 45 J=--B 9- <=! -: 95"> 45"' 459 ; -:& &-"' 6& 4 45 ">=&:4 "-J&=& <:< ;95;<9< &-"' 7-9 <95C-=8 &-"' 64&A4 6<:- 8":5< =&I<J5 4 &"' 459 7<C-89 =&<B :45 7<==5"' &" - =&I<J5 4@:; -659 < 45 &?5 -7 45 <9"=5 ?<9S 9&<>5! 45 8:<>5 -7 45 <>5 6-8=B 4<C5 R8: &7&5B 459 5L5A8 &-" 45 4<B B-"5 ?-95 -B5:59C5 & 4<"' <B <"5 95 ! 64-:5 B5< 4 4<B J55"' <;;9-C5B J 45 < 4-=&A -;&"&-"' -7 89-;5

59 : -9 --D <"- 459 89" 45 7-9>- 459 <?S J& &-"' 7-9 < &?5 &"' < ;59:-"<= ;<::&-"! <"B :45 J5A<?5 45 459-&"5 -7 <"' <B8= 59-8: ?`=-B9<?5 59 48:J<"B 6<:- ?89B595B! <"B :45 ?<99&5B 45 ?89B5959 59 :8JS R5A :- --D <9?:! B5 49-"5B! &?R&9&:-"5B! <"B &" 5"B5B -:5"B 459 -45 :A<77-=B! <"B 45 6-9=B 6-8=B 4<C5 J55"' "-? -95 9-8J=5B 6& 4 459 <"B 459 ?&:7-9 8"5:! J8 7-9 =&I<J5 4@:>9< 8& -8:& 597595"A5 =&I<J5 4 :<C5B 459 =&75 =&I<J5 4! &"' 45 5L<>>59< &-"' -7 ;& ! 8"B59 --D 4<'&7 :45 A-8=B 5:A<;5 79-?'E -A4=5C5"' :45 6-8=B >&C5 459 <"' <: =8?'&"' ">=<"B!E<"B <7 59 45=-: J< =5 < <">:&B5! (<9 8<9 --D 459 < 459 6-9B! A9-::5B &" - 8?J59=<"B! <"B A=<&?5B -J5 95;=<A5B 8;-"' 459 49-"5 J ">=&:4 <9?:

5 &">:<:&B5 45&?? 5B&< 5 ;95 5":&-":64&A4 :45 4<B ;8 7-96<9B -=&I<J5 4@:;=<A5! :45 6<:- 459 45&9 ;95E :8?; &C5 &"' J=--B "B 64< 4<B J55"' 4& 459 -45 A- E B& &-"' -7;59:-":-8"7-9 8"< 5= :& 8< 5B i (<9 8B- K 4<B J55"' 95: 9<&"5B -459 4-8:5 8"B59 B6<9B #=K =&I<J5 4 4<B J55"' 45 ;9&:-"59 -7 (<9 <B < 45E 9&"5 95 ! 64-6<:>&C5"' ;95A5B5"A5 &"' 456&=-7 5"97 # ! 4<B J55"' :5;<9< 5B79-?459 48:J<"B! 4<B J55&H :5" -45 -659! <"B 4<B ;&"5B <6< <"B B&5B

"' B5<=&">6& 4 (<9 8<9 =&I<J5 4 6<:- 5?J<X ;<::5B J < 9<:4 5"><>5?5" ! 64&A4 6-8=B 4<C5 :<H

=&>4 = ' -"' <" ' ;95C&-8:' ">=&:4' -C595&>" ' 45' 4<B' +* !
;9-?&:5B' ?-95' 4<"' :45' A-8=B' ;597-9?' &? ?5B&< 5= '
6& 4' 7<&9"5:: -9' B5A5"A "' J8' :45' ><C5' 45' %855"' -7' *H-B2
A-:' <"' -;;-9 8"& ' -7' A=5<9&">' 459' 95;8 < &-"!' <"B' 4<B'
:45' :8AA55B5B' 6-8=B' 8"B-8J 5B=' 4<C5' 95: -95B' 459
45"' 45' <:D5' =5 59:' B5?-": &@< 5B' 459' >8&= _'
645"' 45' ?595' <8 4-9& < &C5' ;8J4A< &-"' -7' 45?' 6-8=B'
4<C5' :&=5"A5B' 459' 7LK&5"B:' 7-9' 5C59!' 6-8=B' 4<C5' ?<B5' 459'
:8AA5::&-"' &"' ">=<"B' &?;-::&J=5!' <"B' 4<C5'=57' 459' 45'
P";&&5B' C&A &?' -7' 459' -6"' A9&?5:_ =&I<J5 4' A=-:5B'
45' 5"W8&9 !' 7-9J<B5' <' C59B&A !' <"B' ;89;-:5=' =57' &'
-;5"' -' 45' 6-9=B' -' J5=&5C5' 4<' :45' 6<:' ;-::&J=' '
&""-A5"
:' 45' &?? 5B&< 5' A-":5W85"A5!' (<9' 8<9' A<8:5B'
7&9:' <"' -;5"' &":8995A &-"' &"' ">=<"B!' <"B' 45"' 6-C5' <'
5A-"B' >95<' A-":;&9<A' -7' 64&A4' <' ;<"&:4' &"C<:&-"' <"B'
45' %855"@:' ?89B59' C595&" 5"B5B' 75< 895:' 45' ">S
=&:4' <9=&<?5"' =&D5' 45' A-:' 6-8=B' 45"' 4<C5' 4<B' 459'
;8' -' B5< 4_ J8' <><&"' =&I<J5 4' &" 59;-:5B' ' 6<:'
-' 64-== ' &"' >5"59-:& ' 45' 4-8>4' 459' 49-"5' 6-8=B'
J5' ?-95' :5A895' &7' 45' 95<' -659:' A-8=B' =--D' 7-96<9B'
-' 45' ;5<A578=<AA5::&-"' -7' < < 4-=&A' -C595&>"!' 64&=5'
:45' 45=B' 459' ;9-J<J=5' :8AA5::-9' &"' 459' -6"' 4<"B:' <:' <'
;=5B>5' 7-9' W8&5' &"' 459' -6"' =&75 &?5' (<9' 8<9' 6<:'
"-' <==-65B' -'=5<C5' ">=<"B!' J8' :45' 95?<&"5B' &"' A4<9>5E
-7' -9B' 4956:J89 !' "5& 459' ?-95' "-9' =5::' <' ;9&:-"59'
4<"' =&I<J5 4' 4<B' 459:5=7' J55"' 8"B59' 459' :&: 59' 45'
=&C5B' 6& 4' 45' &":&>"&<' -7' %855"' <' 45' 4-8:5' -7' <"'
">=&:4' "-J=5?<"!' C4-' 6<:' "-9&-8:=' <' 79&5"B' -7' 459'
&=5' 45' 6<:' ?<&" <&"5B' &"' =8L?' <' =&I<J5 4@:' A-:!'
EC&4' <==' 45' 5"R-?5" :' C4&A4' <"' ">=&:4' A-8" 9' 4-8:5'
-8=B' <77-9B' 5:&B&">' &"' 45' 45<9' -7' ">=<"B!' :45' J5S
A<?5' 45' A5" 95' -7' 45' 4-;5:' -7' 45' >95<' <4-=&A' ;<9 !'
@H-HB:-' 7<9' 6<:' :45' 79-?' J5&">' <"' 8"6&==&">' ;9&:-"59' 4<

*M32
8=

:45 ?&>4 4<C5 5:A<;5B 4<B :45 ;=5<:5B! J8 6-8=B "- "459-6"-;&"&-"!<"B&" 45-;&"&-"-7 4&=&;-7 ;<&"! :45 6<: &" 45 :& 8< &-" ?-: 7<C-89<J=5 -459 ;9-S :;5A : 45 4<B J8 -95?<&"W8&5 !<"B&7:45-8 =&C5B =&I<J5 4 459<AA5::&-" 6<:<J:--8 5= A59 <&"

8 "5& 459:45"-9 45 ">=&:4 5:8& :6-8=B A-":5" -6<& - 4 6&:45B -<" &A&;<5 45 "<89<=<A &-" -7 &?5 45 5:8& ?&::&-" -7 c 6<: 45 A-?S ?5"A5?5" -7 <"56 :59&5: -7 A-":;&9<A&5: 95=<"B 6<: :5 -"7&95 A- =<"B 6<: :4<D5" 6& 4 95C-=8 &-" ">=<"B 6<: 495< 5"5B 6& 4 7&95:4 95J5==&-"! <"B 45 %855" 6& 4 <::<::&"<&-"

45 5:8& : 4<B J55" 6-9: 5B -?5 :A-95: -7 45? 4<B J55" 4<">5B 45 %855" -7 A- : 4<B 5LA4<">5B <=8L89&-8: 95:&B5"A5 6& 4 <:5?&$ <4-=&A ">=&:4 <9= -:4<9;A-"7&"5?5" 8"B59 < 89& <" D55;59 45 9-5: <" >-C59"?5" 6<: ?-95 7&9?= 5: <J=&:45B &" A-=<"B! <"B 459:-"! :8;;=<" &">459:5=7! "-6<:;&95B -45 :5A-"B ;=<A5 <7 59 =&I<J5 4

45 4<B ;9-75::5B -J5 6-9"-8 6& 4 45 :98>>=5 -J5 6&==&">-95=&"W8&:4 459 <?J&&-"! <"B -B5:&9O -"= -J5 <==-65B -95 &95 79-?45 6-9=B <"B&:C<"&&5:! <"B -:;5"B 64< 95?<&"5B -459 -7 =&75 &" 95=&>&-8: ?5B& <&-"

=&I<J5 4 ;8 459 :&"A59& -<" 8"5L;5A 5B 5:$ <B :45 J55" &" 45 ?--B &" 64&A4 :45 ;95 5"B5B -JH& 45 95<A45& 7 -7 <=:&">4<?6-8=B 4<C5 J55" JO 985: D&"B"5::! 7-9& 6-8=B 4<C5 B&:;5==5B 5775A &C5= <"B 7-9 5C59 45 95?<&":-7 =&I<J5 4: ?&: 98:

P"7-9 8"<5= 7-9 459:5=7 459 ;9-75::&-":6595 J8 <&7 45 6<: 45 -=B (<9 8<9 : &==! 45 :<?5 J-=B! 95: =5::! 8":A98;8=-8:! <?J&&-8: 6-?<"! <"B J89"&">6&=H 45 :<?5 ;<::&-":! <?-"> 64&A4 95C5">5 : --B -8 ;KO B-?&"<" 59: 6<: 45 ;<" 459: "<895H_ H>9<A578=

J5<8 &78=!' ?<=&>"<" !' <"B' 8" <?<J=5' 4<' 6<:' -' J5' B-"5' 6& 4' 459i

"' 45' A-": ;&9<A' & :5=7' 4595' 6<:' 5C59' A&9A8?: <"A5' -' <>>9<C< 5' & :' < 9-A& ' k 45' >5" =5?5"' 64-' 4<B' 8"B59 <D5"' -' D&=-' 45' %855"' 6595' ;59:-":' -' 64-?' 459' >5"59-:& ' <=-"5' 4<B' >&C5"' 45' -;;-9 8"& ' -7' 64&A4' 45' 6595' ;95;<95B' -' <C<&-' 45?:5=C5:' 45' 4<B' <=-65B' 45?' 7<?&=&<9' <AA5::' -' 459' ;95:5"A5!' 4-8>4' D"-6"' -' J5' < 4-=&A:!' <:' <"' <": 659' -' 45' A<=8?" ' 4<' < 4-=&A:' 6595' "5A5::<9&=' B&:=- <=" <"B' 45' 4<B'=5' 45' 5:8& :' ;59:8<B5' 45?' 4<' -' 95;<' 459' A-"7&B5"A5' 6& 4' g"89B59' 6<:' <"' <A' 64&A4' 6-8=B' J5' 95><9B5B' <:' ?59&S -9&-8:' &"' 5<C5"

<=:&">4<?' 6<:' &"' "-' 4<: 5' &77-9B' -=B' 4&?' 4<' J5' 4<B' J55"' B&95A 5B' J' <==<9B' -' >-' -' ;<&"!' -'=5<9"' k 645" <' 7=55' ?&>4' J5' =--D5B' 7-9' -"' 45' A-<:!' <"B' 4<' &-=-' 4&:' 95 89"' "-' <A &C5' < 5?;' 6-8=B' J5' ?<B5' 5' s[<" 5B' ?-95' ;95A&:5' &"7-9?<&-"' 5' "-6' D"56' 4<' 45L@5' 6595' :&L' ;59:-":' 64-' 6595' -' <A' <><&":' 45' %855"!' <"B' 4<' <J&"> -"' 6<:' "-' -"5' -7' 45?!' 7-9' <J&"> -"' C<:' -' 95:A85' 45' %855"' -7' A-:' 5' 4<B' B&:A-C595B' 4<' 65=C5' -9' 7-89 55"' -8">' >5" =5?5"' 6595' &"' 45' 4<J&' -7' :8;;&">' ->5 459!' -9' ?55 &">' <' 5<A4' -459@:' 4-8:5:!' <"B' 4<' <?-">' 45:5' 45' :&L' 6-8=B' J5' 7-8"B!' 4&5' 6<:' 8"<J=5<:' 5' -' &"B&C&B8<=&:5' 45?' 45' B5 <&=:!' 4-65C59!' 6595' 9<;&B=' 7&==&">' &"' 45' C<&"' 7--=:!' <" &S A&;<&">' 45&9' A-?&">' >=-9&5:!' 4<B' 45&9' ;&A 895:' <D5"' &"' <' >9-8;!' <:' 45' B5=&C5959:' -7' 45&9' A-8" 9!' 6& 4' ==<J&"> -"' &"' 45' ?&B:' -7' 45?' -?5' -"5!' ;9-J<J=' &77-9B!' A-" 9&C5B' -' :4-6' &' -' 45' %855"' 45' 95A->S "&:5B' <9" 65==!' 45' 9&:4?<"!' <"B' 645"' :45' "5L' :<6' 4&?' <' 45' -89' :45' =--D5B' <' 4&?' 6& 4' <' : 5<B&"5::' "H4&A4' 6-8=B' 4<C5' <=<9?5B' <' 6&:59' ?<"

<J&"> -"' A<?5' 79-?' 59J :4&95' -' -"B-"' <' 45

@A $ k 5"B J 8= "0 ?&=&-! 64-?45 7-8"B 4595! ><C5 4&?
45 %855"- 7 A- :@ =5 59 D< 5 ;95;<95B -> >-> <: :45
*M32 R B&95A 5BH -> <9&:! -> <=D 6& 4 (5"B-I< (5"B-I<! &"
@-"5-7=&&:=5 59:! 4<B ?5" &-"5B < A59 <&"> (9 --=5 <:
< 95=&<J=5 < 4-=&A --=5 4<B J55"> A-""5A 5B < -"5
&?5 6& 4 5&A5: 59 45 6<: < <A45B <7 596<9B: -> &9
4&=&;> &B"5 " <"B 6<:$"-6&"> 45 :59C&A5 -7 &B"5 @:
6&B-6! <"B 95:&B&"> &"> <=:&">4<?@:4-8:5 ;<::S
;-9 J5&"> "5A5::<9 ! <"B <=:&">4<?J5&"> 45 ;59:-"
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7-9 <"> &" 9-B8A &-"> -> 4&?! <"B 45 :5A95 <9 ! 645"> 45
6<: <B?& 5B! ?8: 4<C5 =--D5B 6& 4 :-?5 A89&-:& -"
45 &"<"> 64-:5 =5 59: 45 4<B J55"> 6< A4&"> <J&">
-"> -=B 4&?4<45 4<B J8:&"5::-"> 45 -"&"5" ! <"B
J 6< -7 95A-??5"B&"> 4&?:5=7 -77595B! &7 <=:&">$
4<?6-8=B <==-6 4&?! ->]:5 4&: =5&:895 <: < :; 8;-"
45 9578>55:

<=:&">4<?><C5 4&?<"> 5"A-89<>&"> <":659! :<s#
4&?<><&"><"B <><&"! B5 <&"&"> 4&?8"B59 C<9&-8: ;LK5$
5L :! <"B ><C5 4&?4-;5: -7 &" 9-B8A&"> 4&? -> =&I<
J5 4 8;;-:&"> ---=5 -> J5 98: 6-9 4 ! <"B J89:
&"> 6& 4 :5=7$&?;-9 <"A5! <J&"> -"75== -"> -"5 -7 45:H
rK&:& : &" -> < =-"> A-"C59:< &-"> 6& 4 4&?! :4565B 4&9"
(<9 8<9 @: =5 59:! <"B -=B 4&?4<45 6-8=B :--"
:55 45 95<=?&"C<B5B! <"B 45 %855"> D&==5B H

5C59 6595 ?5"> 5"><>5B &"> :-> B5:;59< 5 < :59C&AO
?-95 &"7< 8< 5B &B&-:! <"B "5C59 4<B (<9 8<9 @
>5"&8: 7<&=5B 459 ?-95 5>95>&-8:= 4<"> &"> 98: &">
45?P":8:;&A&-8:-7 45 5 5: 4< 6595 8;-"> 45"&&
<"B 78== -7 A<95=5::A-"7&B5"A5! 64&=5 <J&"> -"> 6<
6<& &"> 7-9 4&: ;<::;-9 ! 45 <"B 4&: A-?;<"&-":659H
5" 59 <&"&"> 5<A4 -459 &"> >=-9&-8: <C59"> B&""59:! -7
75<: &"> &"> 45 :8??59 "&>4 :&"> 45 :8J89J<"> ><9B5":K
"> 45 R9B$&R 4 -7 8>8: 45 4<B <:8BB5"> <=<9"HK

$ +&34 *&3 &4=&& D(8> *M32 _ =44 (4) ! / - + '

' :59C<" ' -7'È <==<9B@:!' 64-' D"56' ?-95' 4<"' 6<:' >--B' J 0 #
7-9' 45?!' 6<:' B&:A-C595B'k -' 4<C5' J55"' &"' 4a' ;< ' -7'
45' -C59"?5" H' 45' J<:5' ?< 59&<=' -7' 64&A4' <J&">$' Ø L1)'
-"' 6<:' ?<B5E&": <" = ' 95C5<=5B' & :5=7' <& &7= ' < ' 45<9 '
&"' 45' ?&B: ' -7' 4&:' J9<C<B-!' 45' 69-5' 45' :<?5' B< '
-' ---=5 !' J&BB&">' 4&?' 5==' <=:&">4<?' 4< ' 4595' 6<:'
< A-": ;&9<A ' &"' 4<"B!' <"B' 4< ' 45' 6<:' ;95;<95B' -'
95C5<=' & H

<=:&">4<?!' -' ---=5 @:' :89;9&:5!' 95A5&C5B' 45' "56:'
6& 4' >95< ' A-?;-:895' =&5' :5" ' "-' <": 659!' <"B' <J&">$'
-"' 6<:' : &=' ?-95' 599&7&5B ' 45' "5L ' ?-9"&">' x 8>8: '
7 7w ' 45' ;-=&A5' A<?5' &" -' < <C59"' &"' 64&A4' < "8?S
J59' -7' 45?' 6595' <::5?J=5B!' 6& 4' < 6<99<" ' 7-9' 45'
<995: ' -7' <; <&"' -9 5:5"5!' <=&<:' <==<9B!' 64-' 6<:'
& <D5"' <"B' A<99&5B' -77' &"' 4&:' ;=8?5B'A<;' <"B' J=85'C5=C5 '
&=!' 4-65C5&@!' 45' -JR5A ' 6<:' -' ;59:8<B5' 45?' 4< ' 45 '
595' "-' B&:A-C595B ' -"5' -7' 45' 95: ' 6595' -8A45B' '
-' J=&"B' 45?' 45' 6<99<" ' <><&": ' <==<9B' 6<:' :&>"5B'
"= ' J ' 45' -9B' B?&9<=!' <"B' 45' A4<9>5' <><&": ' 4&?'
<:' ?595= ' -7' J5&">' < B&:>8&:5B' :5?&"<9 ' ;9&5:

89 459' 5C&B5"A5' 6<:' 6<" 5B!' <"B' & ' 4<B' J5A-?5'
B5:&9<J=5' -' J5 9< ' -9' 7-9A5' -"5' -7' 45' ;<9 ' 64-:5'
>8&=' 6<:' D"-6"' -' A-"75:: ' 45' %855"' :8>>5: 5B' 4< '
H'A&;4595B' =5 59' ?&>4 ' J5' A-"C5 5B' -' <==<9B' <:' &7'
79-?' -"5' -7' 45' A-"75B59< 5:!' -' 64&A4' 45' ?&>4 ' J5'
5?; 5B' -' 69& 5' <"' <": 659 ' 8 ' 4&==&;:' 4<B' "-' D5 :'
-' <" ' -7' <==<9B@:' A&;459:!' <"B' 4&:' A-" 9&C<"A5!' &">5$
4&-8:' <:' & ' 6<:!' 4<B' ;' J5' <J<"B-"5B O' ' 6<:' "5L '
;9-;-:5B' -' <995: ' &=J59 ' &77-9B!' <"B' A-"7&"5' 4&?
45' :<?5' A5==' 8 ' <==<9B' 6<:' J5>&""&">' -' ?&:$

6 . 3 &3' &' / 'P 3'&4' %& ' & / $' %&" ' &' " ' /.35 ' &' . ' 3&;
' U U - = 44' (') ! / /*3 ' %.3' # ' 7$& / ' /. ' 7. ' . '
+ ' & $' .D ' !& * *% ' .5(* / ? - '
6 && ?'%&34 *&3 '8 !(7 ' .'$*' 8!9' : $ ' L L'
?' B & %/*3 ' / ' ' &4' .'%*!/ $' = 44' (4') ! /' -' + '
/ $&' * ' 3&3 '# 7 3' /*"' .35 .3

98 : ' &77 - 9B ' 4595 ! ' 6 <: ' " - ' - " 5 ' 5 = : 5 ' 6 & 4 ' 64 - ? ' 45 '
6 <: ' = &D5 = ' - ' J5 ' - ; 5 " ! - " ' 64 - ? ' <=: & " > 4 < ? ' A - 8 = B '
4 & ? : 5 = 7 ' B5 ; 5 " B ! < " B 45 ' 8 " 4 < ; ; ' A & E5 < 895 ' 6 <: ' A - " : & > " 5B '
45957 - 95 ' - ' 45 ' - 659 ' < " B ' 45 ' - 9 895 ' A4 < ? J59
& : ' A - ? ; < " & - " : ! ? 5 < " 64 & = 5 ! 64 - ' 6595 ' = 57 ' J54 & " B ' & " '
45 ' <C59 " ! 45 ' : 5A - " B ' 79 & > 4 ' A - ? & " > ' : - ' A = - : 5 ' 8 ; - " ' 45 '
7&9 : ! ' = - - D5B ' $J = < " D = ' & " ' 5 < A ' - 459 @ : ' 7 < A5 : ' ' 6 <: ' 5 <: '
- ' <= D ' 7 & " 5 = ' <J - 8 ' ? < 9 9B - ? ' & " ' < ' > = - 9 & - 8 : j <8 : 5 ' J8 '
45 ' = 7 89 " ' W8 < 9 59 & " > ' D " & 75 ' 4 < B ' & : ' 599 - 9 : ' 7 - 9 ' 45 '
: 9 - " > 5 : ' " 59C5 : ! < " B ' 45 ' ? 5 " ' 64 - ' B - ' B5 : ; 59 < 5 ' < A & - " : '
< 95 ' " - ' 4 - : 5 ' 64 - ' <= D ' < J - 8 ' 45 ?
<J & " > - " ! <= 95 < B ' B & : 9 < A 5B ! ' 65 " ' - ' <C <> 5 ! ' 45 '
J - = B5 : ' - 7 ' 45 ' : 5 ! ' 64 - ' 4 < B ' " - ' J55 " ' ; 95 : 5 " ! - = B ' 4 & ? '
4 < ' <= = < 9B ' 6 <: ' < D5 " ! < " B ' 4 < ' < = = ' 6 - 8 = B ' J5 ' B & : A - C595B '
7 ' 4 < ' 6 <: ' : - ' <C <> 5 ' : < & B ! - " 5 ' - 7 ' 45 ? ' 4 < B ' J5 59 ' > - ' < ' H
- " A5 ' - ' 45 ' - 89 ! < " B ' D & = ' 45 ' %855 " ' 6 & 4 - 8 ' B5 = < '
<J & " > - " ' J < B5 ' <C <> 5 ' > - ' <C <> 5 ' : < & B ' 4 < ' 45 ' 4 < B ' " - '
B95 : : ! < " B ' 4 < ' 45 ' 8 : 459 : ' 6 - 8 = B ' " - ' < B ? & ' 4 & ? H <$
J & " > - " ' 7 = 8 " > ' < 4 < " B78 = - 7 ' ? - " 5 ' & " - ' 4 & : ' = < ; ! J & BB & " > '
4 & ? ' > - ' J8 ' < B95 : : ! < " B ' J5 ' W8 & AD ' < J - 8 E & ! < " B ' 6 & 4 - 8 '
6 < & & " > ' - ' = 5 < 9 " ' 45 ' 95 : 8 = ! 45 ' 98 : 45B ' - 77 ' - ' - - = 5 ! < " B '
: 5 " ' 4 & ? ' 6 & 4 ' < ' : 5A - " B ' ? - 95 ' 89 > 5 " ' ? 5 : : < > 5 ' - ' <= S
: & " > 4 < ?
- - = 5 ' 95 89 " 5B ' 6 & 4 ' 45 ' : 9 < " > 5 ' < " : 659 ' 4 < ' <S
J & " > - " ' ? & > 4 ' A - ? 5 ' < > < & " ' & " ' < B < ' - 9 ' 6 - ' <J & " > - " '
: 8 ; ; 5B ' 4 < ' " & > 4 ' 6 & 4 ' 6 - ' - 7 ' <= : & " > 4 < ? @ : ' : 59C < " : '
89 & " > ' 45 ' ? 5 <= ' < " - 5 ' 6 <: ' J9 - 8 > 4 ' & " ' 7 - 9 ' - " 5 ' - 7 ' 45 ? ! '
64 & A4 ' 45 ' A - " 9 & C5B ' - ' > = < " A5 ' < ! ' < " B ' : < 6 ' 4 < ' & ' A - " S
< & " 5B ' B & 95A & - " : ' 4 < ' < " ' 5 5 ' : 4 - 8 = B ' J5 ' D5 ; ' 8 ; - " ' 4 & ? : 5 = 7 '
5 ' : = & ; ; 5B ' < 6 < ' & " ' 45 ' B < 9D ! = 5 < C & " > ' 4 & : ' A = - < D ' < " B '
: 6 - 9B ' J54 & " B ' 4 & ? ! ' 7 = 56 ' - ' : 8A4 ' - 7 ' 4 & : ' 79 & 5 " B : ' <: ' 45 ' A - 8 = B '
7 & " B ! < " B ' - = B ' 45 ? ' 4 < ' < = = ' 6 <: ' = - : ' 45 ' : A < 595B '
& " : < " = ! : 5 = 7 $A - " B5 ? " 5B ! ' A - ? ; = 5 & " > ' J ' 45 & 9 ' 7 = & > 4 ! 45

5C&B5"A5' -7' 45&9' 7?8&= ' <J&"&& -"!' C& 4' 7-89' - 459:!'
;=8">5B' &" -' ' -4"@:' E --B!' Q 45"$' < 7-95: 'E0&" 59$E
:;59:5B' $? 4!7<9?:!' <"B' <7 59' C<&"= ' 9RB">' -' -J <&"'
4-9:5:!' 45 ' B&:>8&:5B' 45?:5=C5:' <:' =<J-8959:!' : <&"5B'
45&9' 7<A5:' 06& 4' 6<="8 ' R8&A5!' <"B' =< ' A-"A5<=5B' &"' <
J<9"' < ' <99-6!' 45 ' 6595E=H- ' =->!' 8"B&:A-C595B
45' ?-9"&">' <7 59' 45&9' 7=&>4 ' <"' <AA-8" ' -7' 45' A-"$'
:;4<A ' 6<:' ;8J=&H5B"' 45' "<?5:E-7' 4-:5' 64-' 4<B' 7=5B'
-9' A-"A5<=5B' 45?:5=C5:' 6595' ;9-A=<&?5B"' <"B' =- <='
">=<"B!' &"' < 795"I ' -7' 5LA& 5?5" !' 6<:' &"' :5<9A4' -7'
45?' ' 45' 5"B' -7' 5"' B< :' <J&"> -"!' <9"65==!'
4<9"-AD!' <>5!' <"B' 8" "' 6595' B9<>>5B' 79-?' 8"B59'
45' : 9<6!' <"B' A<99&5B' 5L8= &">= ' &" -' -"B-"!' 64&=5'
J5==:' 6595' 98">' <"B' J-"7&95:' J=<I5B!' <"B' 45' 5<>59'
!' 49-">:' ;-895B' -8 ' 45&9' 5?-&-":' &"' 4<"D:>&C&">'
;:<=?:' 45' 95: ' 4<B' J55"' <=95<B ' <D5"!' -9' 45&9' A<;S
895' :--"7-==-65B ' &A4J-89"5!' 64-' 4<B' < J<B' =5>!' <"B'
A-8=B' "-' ?-C5!' 6<:' <995: 5B' &"' -"B-"' 6& 4' <C<>5'
<"B' &="5?H <=&:J89 ' 6<:' -C59 <D5"' &"' 45:4&95"'
J&"> -"' 5C<B5B' B&:A-C59 ' &==' 45' 5"B' -7' 8>8: !'
J8 ' 6<:' 7-8"B' &"' < 4< $: <AD' &"' -9A5: 59:4&95 ' 459'
;59:-":' 6595' :5&I5B' <:' <AA5::-9&5:!' -9' A4<9>5B' 6& 4' <:S
:&: &">' 45' ;9&"A&;<=:' -' 5:A<;5 ' -9B' &"B:-9@:' J9- 459'
<"B' &9' 4-?<:' 599<9B' <=-"5' -7' 45' 64-=5' :5 ' ?<B5'
45&9' 6< ' -' 45' -" &"5" :

&C&B5B' <"B' :5;<9< 5= ' 5L<?&"5B!' 45 ' 4<B' "5& 459'
;&9& ' "-9' 7<A8= ' 7-9' A-"A5<=?5" ' & =5' A-8=B' J5'
k E098">' 79-?' <==<9B!' J8 ' <C<>5' 64-!' "5L ' -' <==<9B!'
4<B' ?-:' -' 5==!' A-"75::5B' 7955= ' <==' 4< ' 45' D"56 ' 5'
-=B' 4-6' 45' 4<B' J55"' :-=&A& 5B' -' 95>&A&B5' J ' 45'
A-"C59 :' < ' 45&?:" 4-6' <==<9B' <"B' <J&"> -"' 4<B'
:5=5A 5B' :&L' -7' 45?' <7 596<9B:' -' B-' 45' B55B!' <"B' 4-6'
45' :&L' 6595' 4&?:5=7!' 4-?<:' <=&:J89 !' 4&B&-AD' &A4$
J-?"&5!' <9"65==!' J&"> -"!' <"B' &="5 ' 5' B5:A9&J5B!

*M32' 8>8:

' 7<9' <:' 45' 4<B' J55"' 4&? :5=7' <B ?& 5B' -' 45' :5 X95 !' 4`' ;=<"' -7' 45' &" 5"B5B' &"C<:&-"!' <"B' 45' "<?5:' -7' 4-:5' 64-' 6595' 5L;5A 5B' -' 9&:5' &"' 95J5==&-"

45' 7< 5' -7' 45' A-":;&9< -9:' 6<:' A59 <&"!' <"B' 45' ;9-S A55B&">:' 6& 4' 45?' :&?;=5' <"B' : 9<&>4 7-96<9B' ' 6<:' ?-95' B&77&A8=' -' B5 59?&"5' 4-6' -' <A' -6<9B:' 45' ;59S :-"' &"' 64-:5' &" 595: :' 45' ;=-' 4<B' J55"' A-"A5&C5B' ' 6<:' 5<: ' -' <995:' <"B' <AA8:5' 459!' J8' 45' -JR5A' 6<:' -' :5;<9< 5' 459' 79-?' 459' ;<;59:!' -' A4<9>5' 459' :8BB5"= !' A8' 459' -77' 79-?' A-? ?8"&A< &-"' 6& 4' 459' :5A95 <9&5:' <"B' :5&6<" :!' <"B' ;95A=8B5' 45' ;-::&J&4 ' -7' 459' :5A95 &">' -9' B5: 9- &">' <" 4&">

45' %855"' A-":8= 5B' <8=5 !' 64-' :8>>5: 5B' 4<' 45' ?&>4' <D5' 459' -8' 48" &">'' :45' A-8=B' J5' ?5' &"' 45' 7&5=B!' A4<9>5B' 45"' <"B' 4595' 6& 4' 45' A-":;&9<A !' <"B' A<9&E&5B' 8"B59' <' >8<9B' XR{ :-?5' "5&>4J-89&">' 4-8:5"' 64&=5' 45' 4&?:5=7!' <' 45' &":<"' -7' 45' A4<==5">5!' 6-8=B' 9&B5' J<AD' -' 4<9 =5 !' :5&I5' <"B' :5;<9< 5' <8' <"B' 89&5!' <"B' <D5' ;-::5::&-"' -7' 459' A=-:5 :' <"B' A<J&"5 :

4&:!' &' 6<:' 4-8>4 !' 6-8=B' B-' -' <' 4&"' -7' 64<' 4<B' ;<::5B' &"' -"B-"' A-8=B' ;5"5 9< 5' 45' 4-8:5' 6& 4-8' <8=5 @:' D"-6=5B>5!' <"B' 4595' 6<:' "-' -AA<:&-"' 7-9' 4<: 5' J8' 45' 5C&B5"A5' -7' 45' :5A95 <9&5:' 6<:' 6<" 5B' &"' 45' &"C5: &>< &-"' &"' -"B-"!' <"B' 45' 6<:' -9B595B' -' 5L5A8 5' 4&:' ;=<"' 6& 4-8' B5=<

(<9' 8<9 !' 7=8:45B' 6& 4' 45' 5LA& 5?5"' -7' 459' "56E' 4-;5:!' 6<:' &"' 4&>4' :;&9& :!' <"B' 645"' <8=5 !' -"5' J9&>4' 8>8:' ?-9"&">!' :8>>5: 5B' 4<' 45' :4-8=B' D&=-' <' J8AD' <' &9' <= 59' :-"@:' ;<9D!' :45' A<8>4' <' &' 6& 4' BAE' =&>4' &L<==!' 45' ;=<A5' -' 64&A4' 45' 6595' >-&">!' 6<:' "&"5' ?&=5:' -77' ' 6<:' <'=-">' 9&B5!' <"B' 45' ?-95' 65=S A-?5' 79-?' 45' 9<9&' (-:' -7' 459' -6"' ;5-;=5' 6595' -7' 45' ;<9 !' 45' 6-' :5A95 <9&5:' <?-">' 45' 95:' 45' A<C<=A<B5' 4<B' <=?-:' 95<A45B' 45' >< 5:' -7' 45' ;<9D!' k s45"' <A-?;<" ' -7' 4-9:5' 6595' :55"' 6<& &">' &"' 45' 9-<B

(<9 ' 8<9 @:' 7&9: ' 4-8>4 ' ?8: ' 4<C5' J55"' 4< ' <J&">$ -"' 6<:' A-?5 ' ' A<"' $4<9B= ' 4<C5' J55"' - 4596&:5 ' 45' 4<B' -=B' 4&?' -' J5' -"' 45' 6< A4' 7-9' 459' -"' <"' 5L;5B&S &-"' ;95A&:5= ' -7' 45' D&"B ' 8 ' &7' & ' 6<:' :-' :45' 6<:' :6&7 = ' 8"B5A5&C5B ' &9' 4-?<:' -9>5:!' <>5" =5?<"' -7' 45' -89 !' 9-B5'7-96<9B!' <"B' -8A4&">' 4&:' A<;' 6& 4'7 'L ' A595?-" !' ;95:5" 5B' <"' -9B59' 79-?' 45' %855"' 7-9' 45' <995: ' -7' <8' <"B' 89&5!' <"B' 459' -6"' &??5B&< 5' 95S ?-C<=' -' &L<==

45' :<6' < ' -"A5' 4< ' <==' 4<B' J55"' B&:A-C595B ' 5:;5S 9< 5' <:' 645"' 7< 5' -C59 --D' 459' J57-95' -"' 45' :=-;5:' -7' <9J599 !' :45' 9<>5B' <"B' : -9?5B!' <"B' :4-6595B' &"C5AS &C5:' -"' -9>5:' <"B' 4&:' ?&: 95:: ' 45' J<B5' 459' :59S C<" :' B9<6' 45&9' :6-9B:!' &7' 45 ' 6595' ?5"!' <"B' 7&>4 ' 7-9' 459 H' 8 ' & ' A-8=B' "-' J5 ' 45 ' 6595' J8 ' <' 4<"BS 78=!' <"B' :8J?& 5B' -' J5' B&:<9?5B ' 45' :5A95 <9&5:' 6595' A<99&5B' -' -"B-"!' <"B' :45' 459:H5=7 6<:' =5B' <:' <' ;9&S :-"59' -' &L<==

<8=5 !' 6& 4' 5A95 <9 ' <B5!' 64-' 4<B' <AA-?;<"&5B' -9>5:' B-6"!'><==-;5B' J<AD' -' 4<9 =5 !' 64595' B9<659:!' J-L5:!' <"B' A<J&"5 :' 6595' J9-D5"' -;5"' <"B' :5<9A45B ' C59 4&">' 4<' 6<:' 7-8"B' 6<:' :5A895B_ A-995:;-"S B5"A5!' ?&"8 5:!' "-5$J--D:" 45' D5 :' <"B' <J=5:!' <?-">' 45' 95: !' -7' :&L ' A&;459:!' 64&A4' <95' "-6' 5L <" ' <?-">' 45' %855"' -7' A- :' <;59:!' <"B' =5 59:' 79-?' ?<" ' <"' ">=&:4' D"&>4 ' <"B' "-J=5?<"!' ;< &">' A-89 ' -' 4&:' 78 895' -C595&>" ' 45:5' =<: ' =&I<J5 4' J89" !' 64&=5' 45' k 9&59:!' :-' <?B5"' :< :!' @4<C&">' :-?5'&"D=&">' 4595-7! @J5><"' 79-?' 4<' &?5' -' :456' 45?:5=C5:' 45' %855"' @-7' A- :@ B5<B= ' <BC59:<9&5:!' =5: ' 45 ' ?&>4 ' :55?' -' Q4<C5' 7<C-895B' 459' J57-95 @ C59 4&">' 6<:' ;<AD5B

K'@%85' =<' ?&' 5"' 5==5' A-=a95' W85'=5:' :&5":' :5' ?&::5" ' 5"' B`75"A5@ W8@5==5'=@-8 9<>5<' 7-9 5' B5:' ;<9-==5:!' _ <=# > ' ' 2 ' ' A ' ,! a ' :< ?<&: 95::5" ?5:?5:' C-8=8:' *M32' '

T' # '

$d # C < 8 > 8 :

->5 459! :5<=5B! <"B <D5" - -"B-"! - 45 5L<?&"5B J 45 -8"A&=! 64- 6595 "-6 7-9 45 7&9: &?5 - =5<9" 45 :5A95 4&: -9 -7 (<9 8<9 @: 95=< &-": 6& 4 45 < 4-=&A -659: :&"A5 459 <99&C<= &" ">=<"B -B5=&A< 5 < ?< 59 6<: & 4< 5C59 B-A8?5" -7 A-":5W85"A5 6<: :8J?& 5B - <A-??& 55! -7 64&A4 6- ;559: 6595 ?5?J59: 64- 4<B J55" 4& 459 - 45 D55"5: <BC-A< 5: -7 459 A=<&?: 4956:J89 ! &" 64-? :45 4<B 459:5=7 45 ?-: ;5975A A-"7&B5"A5! <"B -J$ 4<?! 64- 4<B ?-95 4<" -"A5 J55" &?;=&A< 5B &" A-"S :;&9<A&5: &" 459 7<C-89 C59 B5A&;4595B =5 59 &" 45 C<: A-==5A &-" J5<9: 5"B-9:5B 8;-" & 45 :&"< 895: -7 4956:J89 <"B -J4<?! J5:&B5: 4-:5 -7 89>4=5 <"B <=:&">4<?! <"B &9 9<"A&: "-== : 45 A&;459$!D5 : 45?:5=C5: J5<9 :&>": -7"-=5::A98;8=-8: 5L<?&S "<&-" 45 ?-: 5L<>>59< 5B ;95A<8 &-": 6595 4-8>4 "5A5::<9 <><&": :8:;&A&-" -7 8"7<&9 B5<=&"> 45 %855" -7 A- : 6<: D5; < &L<== 7-9 < 7-9 S "&>4 45 4-8:5 6<: :?<== <"B &"A-"C5"&5" ! <"B < 45 5"B -7 4< &?5 <8=5 6<: <==-65B - <D5 459 J<AD - 4<9 =5 45 6<: : &== &" ?&B A-"B& &-" B&:45C5==5B 7-9 6<" -7 < 5"B<"A5 <"B A4<">5 -7 A=- 45:i <"B B&:7&>895B 6& 4 :87&759&"> A9-6B -7 J5>><9: 6595 < 45 >< 5 -7 &L<== <: :45 ;<::5B 49-8>4 @ 4<C5 @ "- 4&"> 7-9 -8!@ :45 A9&5B &" < =-8B C-&A5 - 45? @ <?< J5>><9 <: 65== <: -8 <== &: <D5" 79-? ?5$ @ --B >5" =5?5"!@ :45 :<&B! 655;&">! - 45 5:A-9 64&A4 7-9?5B 9-8"B 459! @ <?" - 6& &"> -9 ;9&Cj @ - <" 4&"> &" 5"B5B <><&": 45 %855" @

45 7&9: "56: 4< :45 45<9B -" 95<A4&"> 4<9 =57 6<: 4< <9J<9< (-6J9< ! 459 7<C-89& 5 < 5"B<" i 64- 4<B ?<99&5B 459 :5A95 <& 89&5! 4<B J55" ;95?7&E 895= A-"7&"5B 79-? 45 :4-AD 57-95 95 8 "&"> $* 459 -6" 9&7=5B 9--?! :45 7=56 - 459 79&5"B@: J5B:&B5i <"B A4<9<A 59&: &A<== ! <: &7& 4<B J55" -9B595B J 9-E

C&B5"A5' 4<' &"' 5C59 ' 75< 895' -7' 459' B&:;-:& &-"' :45' :4-8=B' J5' 45' -;;-:& 5' -7' =&I<J5 4!' :45' -=B' 459' 4<' <" ' 7<8=' 64&A4' A-8=B' J5' A4<9>5B' <><&":' 89&5' :45' 6-8=B' <D5' 8;-"' 459:5=7' 45' A4&=B!' <' >&9=!' 6<:' =&C&">!' J8' 45' ;9&5:' 4<C&">' J55"' 95?-C5B!' 6<:' 8"J<; &I5B' 45' <:D5B' <8=5' -' =5' 4&:' A4<;=<&"' A49&: 5"' &!' J8' 645"' :45' :<&B' &' 6<:' -' J5<9' 459' -6"' "<?5!' 45' 9578:5B' ":<" =' :45' =<&B' 45' &"7<" ' -"' 459' =<;!' --D' 6< 59' 459:5=7' 79-?' <' J<:&"!' <"B' :;9&"D=5B' &:' 7<A5!' :< &">!' (' (<9 !' *' J<; &I5' 455' &"' 45' <?5' -7' 45' < 459!' -7' (' 45' -"!' <"B' -7' 45' -=' 4-: @

45"' :45' 65" ' -' 459' -6"' <;<9 ?5" :!' -' 7&"B' B9<659:' <"B' J-L5:' -;5"' <"B' 5?; !' <"B' 459' ?-:' :5A95' ;<;59:' >-"5' (' -?5' -7' -8' 6&=' J5' :-99' 7-9' 4&:!@ :45' :<&B' :59"=' -' <8=5 !' 64-' 6<:' < 5"B&">' -"' 459' (' 6-' K' 4&">:' A<""-' J5' <D5"' 79-?' ?5_?' ">=&:4' J=--B' (' <"B' 45' < 4-=&A' 95=&>&-"!' 64&A4' ' 6&=' D55;' &=' ?' (' B5< 4 @

=&I<J5 4' 4<B' "-' J9<C59' :8JR5A' 4<"' <8=5 !' "-' -"5' 64-' 6-8=B' 4<C5' J9-D5"' =<"A5' 6& 4' =&>4 59' 45<9' &"' 459' J54<=7' <><&":' 45' :-8 5:' D"&>4' &"' 49&: 5"B-?' J8' 4595' 6<:' :-?5 4&">' &"' 4&:' 7&59' 6-?<"' 4<' <65B' <"B' 79&>4 5"5B' 4&?' 5' B95<B5B' < 9&:&">' &"' 45' A-8" 9' 5' 89>5B' 459' 95?-C<=' -' :-?5' :9-">59' ;=<A5!' <:' < ?< 59' -7' ;95::&">' "5A5::& !' 6&:4&">' 5C&B5" =' 4<' :45' <:' &"' 45' -659!' <"B' 4<' 45' 6<:' 9&B' -7' 4&:' 95:;-":&S J&=& &5:' 6& 4' 459 H

45' %855"!' 4-8>4' :45' B&B' "-' >&C5' 4&?' 45' 95=&57' 64&A4' 45' 6&:45B!' 5' <;;95A&< 5B' 4&:' :59C&A5:' -' 5<A4' -"5-7' 45' 9&C' -8"A&=' :45' 5L;95::5B' (' 459' ?<9C5=-8:' (' :< &:7<A &-"' @ 6& 4' 4&:' J54<C&-89!' <"B' -' 4&?:5=7' :45' 9-5' <' =5 59!' &"' 64&A4' 459' J5 59' "< 895' : 98&R>=5:' C&4' 459' <775A < &-"' 6& 4' 9< 459' ?-95' :8AA5::' 4<"' 8:8<=

E' <8=5' -' <=:&">4<?!' 8>' O,$ 5;' 2 _ =44' (4')! /' -' + '

:' .' E

*M32 8>&:

? <:I :45 69- 5! ? ? -: 7<& 478= <8B A<9578=
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7-9 4 ? -: 9-8J=5:-?5 A4<9>5 :- 65== B&:A4<9>5B
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4< A<""- J<=<"A5 &" <" 65&>4 -7 ? R8B>5$
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95<:895 - A-8" 59C<&= :8A4 < 7<& 4" <"B :4<== A-"$
B5?"" ? :5=7 &" 4< 7<8= ! 64&A4 5 "5C59 A-??& $
5B! &7 956<9B "- :8A4 B5:59 : 5<! =5 ?5 =<AD
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?<" 7-9>&C5"5::5:! ?8: 7<== <><&"" :-4-99&J= ! 7<9 ;<::$
&">< 6-?<"@: 4-8>4 !H8A4 =5::< ;9&"A5@: <"B! &"$
: 5<B -7 5LA8:&">! 64595-7"- -"5 A<"":59C5! & J5&"> *
;=<&"= A-"75::5B J 45 <8 4-9: -7 ? >8&= =5::B5< 4!
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;-::5::459! :-<: 459 J5 59 ;<9 J5 =-: ! 64&A4 ;9< !
6& 4 4<"B: =&7 5B 8;- & ?: 4< ? < J- 4 :<C5 '(6
:;&==

Q & 4 ? ? -: =-C&"> <B&58! <"B ;9< 59: 7-9 4
=-"> =&75! -89 ?-: <::895B <"B =-C&"> -C595&>"! <
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K =&I<J5 4 - &9 ? <: <8=5 ! 8> *M32 _ =44 2 %89& -&
+ '

<"&A' ?5<"64&=5' 4<B' :;95<B' 49-8>4' 9- 5: <8'
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: 9-">4-=B:' -7' -?<"&:?' 45' -8">' J<99&: 59:' 4<B'
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Q8"8:8<=' <8B<A& ' L 9<-9B&"<9 '57&J&E :'4<B' J55"' ?<B5'
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Q A489A4!' :8A4' <:' (<A4&<C5==&' ?&>4' 4<C5' <;;9-C5B Q
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4<' 8&:5' 6<:' -"' 45' A-<:' -7' 8::5L' <=:&">$'
4<?' 4&?:5=7!' -' 64-?' 45' 98 4' 6<:' 5L<A = ' D"-6"!'
4-8>4' & ' "-' 8"=&D5= !' 4<' -"' 45<&&&">' -7' 45' B&:A-S
C59 !' 5& 459' 8&:5' -9' <9?<!' -9' J-4!' ?&>4' 95<==
9&:D' :-?5' 577-9 !' <:' <' =<:' A4<"A5!' -' :<C5' 45' =&75' -7' 45'
%855"' -7' A-:' 45' 5<>85' 4<B' <"' <9? ' &"' -9$'
"<"B !' 95<B !' :-' &" 59A5;5B' =5 59:' :<&B!' -' 5?J<9D' <'
<' B< @:' "-&A5' " ' ?-?5" ' 45' J=<I&">' J5<A-":' ?&>4'
J9&">' 6-9B' 4<' 45 ' 6595' -"' 45' ">=&:4' :4-95:
4-8>4' 45' <"=5 :' >5"59<== ' 6595' < 4-=&A!' -9B'
59J ' 4&?:5=7' 6<:' =- <=' -89&59:' 9-B5' ;-:' -' <"S
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;9&"A&;<=' >5" =5?5"' &"' 45' "-9 459"' A-8" &5:' 6595' -"'
45&9' 6<' -' -"B-"' 8"B59' <' >8<9B' <9"&">:' 6595'
B&:;< A45B' -' A- =<"B' : 9-">' ><99&:-":' 6595' 49-6"

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*M32
8>8:

&" - -9 : ? - 8 4 <"B = ? - 8 4 45 ?8: 59: 5C59

#

6 4595 6595 A<==5B -8 ! <"B "&"5 4 - 8: <"B 9<&"5B : - =S

*M32

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? <" "5B! <"B :5" - 6< A4 45 95" A4 4<9J - 89: H

45 599 - 9 < ? - ">45 < 4 - =&A: 6<: 5W8<== C&- =5" 7 59 45&9 =<: B&:<; ; - &" ?5" ! 45 4<B 95: - =C5B - 4<C5 " - ? - 95 - B - 6& 4 A - ": ; &9<A&5:! <"B ? - : - 7 45 ? 4<B " - >85: : 5B - 64< 45 6595 A - ? ?& &">45 ? S :5=C5: 645" 45 4<B <== - 65B <==<9B - 755= 45&9 B&: S ; - :& &- " - " 45 :8AA5: : &- " 45 7 - 8"B 45 ? :5=C5: :8BB5"= :8: ; 5A 5B - 7 J5&">< AA - ? ; =&A5: &" < ; =- 7 - 9 45&9 - C595&>"@: ? 89B59! 45&9 =5<B59: <995: 5B! 45 ? S :5=C5: 95><9B5B <: C5" - ? - 8: J5<: : <"B J5 9< 59: <"B 5"5 ? &5: - 7 45&9 A - 8" 9 45 A - 6595B :4&C59&">&" 45&9 4 - 8:5: " - B<9&"> - :4 - 6 45 ? :5=C5: &" : 955 - 9 C&==<>5! <"B 45 =- - D5B 7 - 9 " - 4&"> J5 59 4<" 45 %855" - 7 A - :@ 5L5A8 &- "! <"B 45&9 - 6" ; 9 - : A9&; &- " <"B B5: 98A &- " H

45 B&: A - C59 4<B J89: 8; - " 45 - 8"A&= 6& 4 < ? 8A4 :8BB5""5: : <: - " 45 A - 8" 9 <"B - 8"A&= <"B 4 - 8:54 - =B 6595 &" B&: ?< <"B <>& < &- " =&I<J5 4 459:5=7! 4 - 8>4 - " 459 45 D" - 6=5B>5 4<B J9 - D5" >9<S B8<== ! 6<: ; 594<; : 45 ? - : <>& < 5B - 7 <P 45 :<&H 45 95?5"B - c: <= 59"< &C5 64&A4 :45 6 - 8=B "- 6 JH A<==5B 8; - " - 7<A5 7 45 ; 95:5"A5 - 7 45 %855" - 7 A - : &" ">=<"B 4<B A<8:5B ; 59: - "<= B<">59 - 459! 4 4<B J55" < 45 :<?5 &?5 459 4&>45: ; - =& &A<= :5A89& K 45 < 4 - =&A - 659: 4<B =5 459 <= - "5 459 - 6" < 4 - E =&5 :8JR5A : 4<B 7 - 9 45 ? - : ; <9 J55" =- <=! : - =- ">

K - 5: - 7 &=&">: - J5 ; 8 &" O 5A95 <BC59 &:5?5" : - <=E 5L5A8 &- "! 8> *M32 <=:&">$:&">4<?! 8> *M32 _ =44 :!)1 4<?@: J<"B _ =44 5*. $!3

5' 45&9' -7' 45' A9-6"' 6<:' <' ;9&"A5::' -7' 45&9' -6"' 7<& 4!' 64-:5' ;95 5":&-":' 8"B59' <' 4-8:<"B' ;9-C-A<&-":' 45' 95&>"&">' %855"' 4<B' :A98;8=-8:=' 95:;5A 5B' '&7' 45 ' 4<B' < 5?; 5B' C&-=5"A5!' 45 ' D"56' 4<' :45' ?&>4 ' J5' D&==5B!' <"B' 4<' 45' J5:' -' 64&A4' 45 ' A-8=B' 45"' =--D' 7-96<9B' 6<:' <"- 459' 6<9' -7' 45' -:5:' 5?J& 595B' J ' 95=&>&-8:' <"&?-:& ' 45 ' 4<B' ;9575995B' -' 6<&'7-9' 45&9' =5>& &S ?< 5' 9&>4 :!' <"B' 45' >95<' J-B ' -7' A-8" 9 ' >5" =5?5"' 95?5?J595B' 4<' &7' < 4-=&A:' 45 ' 6595' ">=&:4?5"!' <"B' 4<B' =&: 5"5B' A-=B=' <"B' 95=8A <" = ' -' 45' 5L4-&E <$ &-":' -7' 45' 5:8&:' -' 45' 9-5: <" :!' -"' 45' - 459' 4<"B!' 64-' 4<B' J55"' =&I<J5 4@:' <A &C5' :8;;-9 59:!' 45' ;9-:;5A' -7' (<9 ' 8<9 @:' <AA5::&-"' 4<B' 49-8>4-8' J55"' <"' 8"?&L5B' ;59&=' 95B-?&"<" ' <J-C5' <=' 95=&>&-8:' B&7S 7595"A5:!' 4595' 6<:' <' 7&L5B' 95:-=8 &-"' &"' 45' "<&-"' -' 4<C5' "-' :5A-"B' 6<9' -7' :8AA5::&-"' &7' &' A-8=B' ;-::&J=' J5' <C-&B5B' 7' (<9 ' 8<9 ' 6<:' <=&C5' <' =&I<J5 4@:' B5<4!' 5C5&' -"5' 75=' 4<' :45' 6-8=B' <"B' ?8:' J5A-?5' %855"' <?5:' -7' A-=<"B' 6-8=B' 45"' -7' A-89:5' J5A-?5' < < 4-=&A' 45' ">=&:4' 9-5: <" :' 6-8=B' Ja' =&D5' 45' 8>85"-:' &"' 9<"A5!' <"B' 45' J5:'7-9' 64&A4' 45 ' A-8=B!' 4-;5' 6-8=B' J5' <'756' 5<9:@ ;95A<9&-8:' -=59< &-"' -' J5' 9<?;=5B' -8' -7' 5L&:5"A5'&"' 45' 5"B' 5=7$;95:59C<&-"!' 45957-95!' -"' 45&9' ;<9 !' B5?<"B5B' 4<' :45' :4-8=B' "-6' ;<' 45' ;5"<=' -7' 459' A9&?5' 45"' <' =5<:' 45 ' 6-8=B' 4<C5' <' :8AA5::-9' -' =--D' 7-96<9B' -!' 64-' 6<:' "-?&"<=' <' 9-5: <" ' ' &7' <"' <9?5B' :98>>=5' 6<:' -' A-?5!' 45 ' -8=B' >-' &" -' &' 6& 4' 45&9' -C595&>"' -"' 45&9' :&B5' '<"B' 45 ' 4<B' J55"' --'7<& 478=' -' =&I<J5 4' -' 5"<J=5' 459' =&>4 = ' -' 9578:5E 45&9' 9&>4 5-8:' B5?<"B:' 59' ;9&C< 5' &" 595:' 6<:' :&==' -' =5 ' (<9 ' 8<9 ' =&C5 ' 59' -J=&S >< &-":' <:' <' %855"' 95W8&95B' 4<' R8:&A5!' =-">' 5C<B5B!' :4-8=B' A=<&?' &:' B85' <' =<:

' ;8J=&A' 9&<=' -7' <J&"> -"' <"B' 4&:' <AA-?;=&A5:' A-8=B

*M32 &4! 4 ; 4"

" - J5 <C-&B5B! <"B (<9 8<9 @:A-995:;-"B5"A5 6& 4 45?? ?8: &"5C& <J= J5 5L;-:5B 45 -8"A&= <BS C&:5B <" &??5B&< 5 A<== -7 <94<?5" " <"B 45 5L;5$ 9&5"A5 -7 45 =<: :5::&-" :4-65B J8 --A=5<9= 64< <9=&<?5" 6-8=B 95A-??5"B ??8: 4<C5 J55" < 4&: &?5 4< ! : 98>>=&">6& 4 A-" 5"B&">755=&">:! =&S I<J5 4 69- 5 :5A95 = - (<& 8<9 - 5== 459 4< &7 :45 6-8=B A-"75:: 459 >8&= <"B <:D 7-9 7-9>&C5"5:: &" < ;9&C< 5 =5 59 - 459:5=7! 459 A9&?5 :4-8=B J5 <><&" -C59=--D5B! <"B :45 :4-8=B 45<9 "- ?-95 -7 & H @ 6<:"- - 5" 9<;459!@ <: =&I<J5 4 A-8=B ?-:4-"5: = :< 45 D"56 <: ?8A4 <: 45 %855" -7 A- : A-8=B 5== 459! <"B 45 5C&B5"A5 6<: -C5964 5=?&">= A-"A=8S :&C5 6<: - 7&"B <" 5:A<;5 -8 -7 459 -6" B&=5??< 45 8"B59: --B 45 ;59:-" 6& 4 64-?: :45 4<B - B5<= 7 (<9 8<9 A-8=B -"A5 J5 J9-8>4 8;-" 459 D"55:! :45 75= 4< 459 :;&9& 6-8=B J5 J9-D5" <"B 4< :45 6-8=B J5 B<">59-8:" -?-95

8 "- <": 659 A<?5! <"B &?5 ;95::5B <"B <8=5 9578:5B - J5 95:;-":&J=5 7-9 4&: ;9&:-"59 &7 :45 6<: =57 < 4<9 =5 < <7 59 B< 45 -8"A&= :< 5 < &"B:-9! <"B 45 %855" 6<: Q C<9&<J=5 <: 45 65< 459 @H 45 6<: &?;<&5" 4< :-?5 4&"> :4-8=B J5 B-"5!@ 5 :45 -JR5A 5B -5C59 4&"> 4< 6<: ;9-;-:5B O 45 9&5B - <C-&B <?55 &"> -7 <9=&<?5" ! <"B &5=B5B -"= 645 459 ?&"&: 59: 6595 8"<"&?-8: -" 45 "5A5::& -7 & ! Q - Q ?<D5 45 J89B5" J5 59 J-9"5! <"B 45 6-9=B <J9-<B Q J5 59 :< &:7&5B @ 457-8"B 459:5=7 -J4>5B <=:- -;59S ?& <" 5"W8&9 &" - 45 A-"B8A -7 45 %855" -7 A- :! <"B <:;5A&<=A-??&::&-" 6<: "<?5B-7 ;559:! R8B>5:! <"B 9&C -8"A&==-9:! 8 :45 A-8=B "- B5A&B5 645" 45

K ;55A4 -7 %855" =&I<J5 4 &" *+$.+ _ =44 5*. $!3
<9=&<?5" $; 9 / 4--D &&& V 89>4=5 - <=:&">4<?! 5; K
; N3 3$*3 _ &&&:! *: :59&5:! C-= &&&
K 89>4=5 - <=<&">4A$?! 5;

A-?? &::&-"' :4-8=B' :&' -9' 64& 459' 45' %855"' -7' A-:
:4-8=B' J5' 95?-C5B' 45' -8"A&=' ;9-;-:5B' 45' -659' $$$$$
'6<:' (7=< = '9578:5B(45' :8>>5: 5B' 59 7-9B' <: =5' 5;5?J9
45' A-":5" 5B' 7-9' <' B< !' <"B' 45"' :<&B' &' 6<:' --' "5<9'
-"B-"' - 459&"><' :45' 4-8>4'6<:' <:' ?8A4' --'7<9
((<" '- 459' ;=<A5:' 6595' "<?5B!' <:' 9<7 -"!' --B: -AD!
-9 4<?; -"!' -C5" 9 !'<"B' 8" &">B-"' J8' "-"5'-7'
45?' 6595' <==-65B!' 5& 459' 7-9' =<AD' -7' : 95"> 4' 7-9' 459'
D55;&">!' -9' -7' <' :;<A&-8:' ;=<A5' 7-9' 45' A<8:5' -' J5'
45<9B' &"!' -9' 7-9' =<AD' -7' =-B>&">' 7-9' 45' <::5?J= H
-' 6& 4' 65<9&"5::' -7' <=D!(:<&B' 89>4=5 !' Q459' (<$
R5: '=57'-77' <==' &==' <' &?5' 'D"-6' "-'645" -9'
-?5' A<8:5!' ;594<;:' J5A<8:5' 45' 4<B' B&:<;;-&" 5B' 459' &"'
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8&E>4=5'4&?:5=7' 5' 4<B' J55"' <;;-&" 5B' -9B$ &58S
5"<"'-7' 59 7-9B:4&95' & 4-8'<::&>"&">' <" '95<:-"!'
:45' : 98AD' -77' 4&:' "<?5' ('A-8"' & !(45' :<&B!' (&"' 45'
("8?J59' -7' ?<" '- 459' B&:>9<A5:' 4-8>4' "-'B&:5<:5:(
- 459&"><' 6<:' <'=<:' ;& A45B' 8;-"!' <: 9-">' 9--?'
<: =5&"' -9 4<?; -":4&95!' J5=-">&">' -' 45' 9-6"' 7'
B5?-5'79-?' -"B-"' &' 6<:' 45' "5<959' -' 4<9 =5 !' <"B'
45' 95?-C<=' 4& 459' A-8=B' J5' 5775A 5B' 6& 4' 45' =5::' B&7S
7&A8=' (<" ' ?5?J59:' -7' 45' 5L&: &">' <9=&<?5" '
J5&">' &"' 45' -6' -8" 9&5:' 6& 4' 5&A5: 59!' <' B&::-=8 &-"'
<:' B5A=<95B' J '=5 59:' ;< 5" !' <"B' 69& :' 6595' :5" '-8'
7-9' <' "56' >5"59<=' 5=5A &-"' A -J59' 6<:' "<?5B' 7-9' 45'
J&55 &">' -7' 45' A-??&::&-"5&(:' <' - 459&"><' 45' &"S
59C<=' 6<:' -AA8;&5B' ? 4' 45' 9&<=' <"B' ;8"&:4?5"' -7'
45' 9`:' -7' 45' A-":;&9< -9:

4&=5' 45:5' <99<">5?5" :' 6595' J5&">' A-"A=8B5B' <'
&"B:-9!' <=:&">4<?' 4<B' J55"' <D&">' B5;-:& &-":' <"B'
H5<9&">' A-"75::&-":' ?' -"B-"' 45' 5" &95' 65J' 4<B' J55"'
J"'9<C5==5B' <"B' 45' C<9&-8:' :A45?5:' 95C5<=5B' &"' 64&A4

(89>4=5' -' <=:&">4<?!' 5;!'=-$I- _ =44'5*. $!3
V :!)

& 4<B J55" ;9-;-:5B - >5 45 <::<::&"< &-" <AA-?$
$$$$$$;=&:45B <==<9B! <7 59 45 7<:4&-" -7 4&: -9B59! 4<B
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@ <D&"> 45 %855" <6< J ;-&:-" <: ?-: 5<: <"B =5::
@ B<">59-8: - 45 B-59'@H 45 >5" =5?5" Q=&D&"> "-
@ 4&:! J8 ;957599&"> - B- & C<=-9-8:= &" 45 ><9B5"
@ -9 45 ;<9D @H

45 6- :5A95 <9&5:! <7 59 =-"> B5"&<=:! 6595 J9-8>4
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;95:5"A5 O <8@: ?&"8 5! -C59=--D5B < 7&9: &" 45
:5<9A4$ < 4<9 =5 ! 6<: 7-8"B &" < J8"B=5 -7 ;<;59:
64&A4 45 4&?:5=7 ;-&" 5B -8 H

" 45 ? 4_5?9B -7 5; 5?J59 < :;5A&<= A-??&::&-"
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&-": &?;5975A = :8: <&"5B! <"B 5W8&C-A< &-": < 5?; 5B

K -"75::&-" -7 995==! 8> 5; M$*M -"75::&-" -7 -
F+$ 5; N _ =44) ! / 5; :$&M (< 59: 64595 6& 4 -
67 ' &: - 45 A4<9>5B! 5; &&$ A 9 H
O :!) =44 (4) ! / +
K <=:&">4<? - 4&==&;;:! 5; | <B5 - 4&==&;:! 5; ,$* H
F$*F! 1$*1 -"75::&- -7 89&5! =44 :!)

<"B' 6& 4B9<6"!' 45' 95:' -7' 45' ;9&:-"59:' ;=5<B5B' <:' <C<>5' 4<B' B-"5' 45 ' ;95 5"B5B' A-":A&5"A5' <:' 45&9' ?-&C5!' <"B' <J&"> -"' A4<&@>5B' <==<9B' 6& 4' 4<C&">' :5B8A5B' 4&?' 79-?' 4&:' <==5>&<"A5' 45 ' 6595' :5" 5"A5B' &"' 45' 8:8<=7-9?' "' 45' c 4' 7-==-65B$ 45' <99<&>"S ?5"' -7' 45&9' 95?<&"&">' A-?;<"&-":' 45 ' 4<B' J55"' B&C&B5B' &" -' 6-' >9-8;:!';594<;:' J5A<8:5' 45' 5C&B5"A5' 6<:' ?-95' A-?;=5 5' <><&":' :-?5' 4<"' <><&":' -459:' 45' 7&9:' :5C5"' D"56' 4<' &' 6-8=B' J5' 8:5=5::' -' < 5?;' <' B575"A5' 45' :5A-"B' :5C5"' :<&B' 45 ' 6595' &""-A5" !' <"B' B5?<"B5B' < 9&<=' J&"> -"' 4<B' sC9& 5"' -8' <' A-"75:S :&-"' &"' 45' -659!' J8' 4<B' -9"' &' &"' ;&5A5:' <"B' 95W8&95B' -' J5' A-"79-" 5B' 6& 4' 45' 6& "5::5:' <><&":' =&&?!' <AA-9BS &">' -' <' =< 5' A' -7' <9=&<?5" ' 5' 6<:' -=B' 4<' 45' <:"-' &"B&A 5B' 8"B59' 4<' A !' J8' 8"B59' 45' A-??-"' =<6' <"B' 45' < 8 5' -7' B6<9B' ' 64&A4' B&B' "-' 95$ W88@5' 45' ;95:5"A5' -7' 6& "5::5:' 45' 7-9?:!' <AA-9B&">' -' ?-B59"' "-&-":!' 6595' &995>8=<9"' J8' 4595' 6<:' "-' E5<=B-8J' -7' 45' >8&=' -7' <" ' -7' 45' ;<9 !' 5LA5;' ;-:S :&J=' -7' 59-?5' 5==<? !' < <99- C' 7<9?59!' 64-:5' A9&?5' H<:' 45' 4<C&">' A-"A5<=5B' <J&"> -"' <"B' :8;;=&5B' 4&?' C& 4'7--B' "' 45' 5L&:&">' 5?;59' -7' -89' <"B' A-8" 9' -' 4<C5' D"-6&">=' A-8" 5"<"A5B' 45' A4&57' A-":;&9< -9:' &"' 45' 7<&" 5:' B5>955!' 6<:' -' 4<C5' :4<95B' 45&9' A9&?5 45' 6595' <==:5" 5"A5B' ->5 459" <"B' 45' 8:8<=7&C5' B< :' 6595' >&C5"' 45?' -' ;95;<95' 45' B5:59C5' "-' ;& ' <"< &A:' =&D5' <895>8' -9' 59<9B!' 64-' J9--B' "' :5A95' <"B' <=-"5' -C59' <"' &B5< &==&' 4<:' J5A-?5' < 5A-"B' "< 895' <"B' < B5:&" ' -' 45?!' <95' ?-"-?<"&<A:' H4-:5' A9&?5:' &":;&95' 75<9' <"B' B5 5:<&-"!' J8' 4<C5' -4&">&"' 45?' -7' 45' ?-95' 95C-=&">' 5=5?5" :' -7' J<:5S =5::' C5"' 45' <?&= -"' 64-' :4-' 45' 5>5" ' (899<' #<:' &":;4@5B' J' 45' A=<"' 4< 95B' 64&A4' 9<"' :-' 7&59A5= ' &"' 45' C5&":' -7' A-A4?5" ' 8' &7' 45' 489A4' -7' -?5' < 5?;:' -' ;<==&< 5' 45' <A:' -7' 45' <J&"> -"' A-":;&9<$

*M32 # $

-9:! & ? 8: :5 <:&B5 -J=&>< &-": 64&A4 4<C5 J55"" 45=B
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=-">:-4&5C5:! <"B 6-8=B 4<C5 :<C5B 4&?:5=7< 45 =<:
?-?5" &7 45 A-8=B < 45 5L;5":5-7 4&:A-"75B59< 5:V
"" 4-99-9 < 45 7< 5 64&A4 45 :<6 J57-95 4&?! -"" JH
B< J57-95 45 6<: -:87759 45 69-5 < B5:;<&9&">;;5<H
E 45 %855"" 64-?45 6-8=B 4<C5 ?89B595B
<B?& 5B 4< 4&: A9&?5 6<: --> 95< 7-9 48?<" A- E

?&:5&&< &-"!' J8' 45' RR9< 5B' 459' (' -' 6-9D' <' ?&&&<A=5' -7 (' ?59A (' 8;-"' 4&?!' <"B' -' ?<D5' 459' >=-w' :4&"`' <:' A-"$ $$$$$$ A-":;&A8-8:=' <:' 4&:' -6"E4-99&J=5' ;9<A &A5:' 4<B' J55"' 5;5?JB9 B5 5: <J=5 H

-' <":659' 6<:' C-8A4:<75B' 4&?K' "-459K' 7&$<>?5"' -7' 4&:' 4<"B69&&">' :89C&C5:' -7' <' B<5' 5' =<59' &9' 9<"A&:' "-P :' <"B' 6-' -7' 45' R8B>5:' C&:&5B' 4&?' 45' 7-==-6&">' ?-9"&">!' <"B' 7-9' 45' =<:' &?5' 45' <8 45" &A<5B' &"' 45&9' ;95:5"A5' 45' <=;4<J5' -7' 45' A&;459' 64&A4' 45' 4<B' 8:5B' 6&4' (<9' 8<9 H

??5B&< 5=' <7 596<9B:' 45' 6<:' A<99&5B' -' J89"!' 6&4' <==<9B!' <C<>5!' <9"65==!' 4&B&-AD' &A4J-89"5! &="5 !' <"B' J&"> -"' E' 45' 95:' 6595' 95 <&"5B' 7-9' 45' H-99-6' 45' J=--B' -7' 45' ;5-;=5' 6<:' 8;' -"' J-4' :&B5: "' <>5"' -7' <=:&">4<?@:' :5"' 4&?' 6-9B' 45' "&>4' J5S 7-95' 4<' 45' <4-=&A:' 6595' B5:;59<5' D"-:' -7' 4-$ J=--B5B' -8">' ?5"' 6595' <D&">' C-6:' 4<' 45' 6-8=B' :&==' B-' 45' 6-9D' -?5' :6-95' 4<' 45' 6-8=B' D&==' 45' %855"!' :-?5' 4<' 45' 6-8=B' 95:A85' (<9' 8<9' &7' 45' B&5B' &"' 48"B95B:' 7-9' &H' 45' -C59"?5"' -"' 45&9' :&B5' 595' B5 59?&"5B' -' :456' -' 45?!' 4<' &7' 45' ;=<5B' &4' 95<:-"!' 45' :4-8=B' J5' ?<B5' -' :87759' 45' C59' -9:' 64&A4' 45' =<6' 6-8=B' ;59?&' -' 45' <9<B&:5' 9-?&:5B' 45?' &"' 45' -459' =&75' 45' %855"@:' ;-659' B&B' H-' 5L 5"B' J8' 5C5"' 6&4' <9<B&:5' &?5B&< 5=' J5S -"B!' B5< 4' A-8=B' :&==' J5' :-' &"7=&A 5B' <:' -' ?<D5' 45' 4&5 4-B' -7&' ?-B59< 5=' 599&J=5

45' 6595' ;59?& 5B' 5<A4' &"' 89"' -' :;5<D' -' 45' 9-6B' <==<9B' :<&B' 4<' &"' 64<' 45' 4<B' B-"5' <"B' H5<"' -' B-!' 45' 4<B' :-8>4' -"=' 45' <BC<"A5?5"' -7

K' < &"> -"' -' 45' %855"!' 45' %855"' -7' A-:_H "4-"' <$' HO;' *N$.N _ =44' 5*. $!3 J&"> -"!' 5;' .+$F+@_ =44' :!)
K E' B-' <AD"-6=5B>5' 45' =<:' -7' 45' 6& 4&"' 69& 5"' <=;4<J5:' -' J-' 45' #59' :<?5' J' 64&A4' 69&' 8" -

+ = # &< 45 A<==5B 985 95=&>&- ? <J&"> - " :<&B 4< 45
?89B59 -7 45 %855" 4<B J55" 95;95:5" 5B -4&?<:
!C"#$ < B55B =<678= <"B ?59& -9&-8: <C<>5 8:5B "5<9= 45 :<?6-9B: &A4J-89"5! ;< &"> <" &"C-=8" <9 A-?;=&?5" -=&IH5 4:" - -9&-8: A=5?5"A ! B&B" - ;95 5"BH 4< 45 6<:&""-A5" ! J8 <B?& 5B 4< 45 4<B 5L;5A 5B -J5H<9B-"5B =A<==5B 45?:5=C5:<9B5" < 4-=&A:! <"B <::8?5B 45 A4<9<A 59 -7 :-=B&59: -7 45 7<& 4 4-:5 64- 5L;95::5B 95>95 7-9 45&9 A9&?5: W8<=&7&5B 45&9 :-99-6 6& 4 A-"B& &-": 45 <:D5B 7-9>&C5"5::&7 45 4<B B-"5 69-">! "-A4--:&"> -A-?S ;9-?&:5 45&9 -9 4-B-L J <==-6&"> 45 ;-::&J=5 8"=<6S 78="5:: -7 64< 45 -;5 4<B :<"A &-"5B 45 6595 <== 4<">5B J8 7-9 <?-?5" ! <AA-9B&"> - 45 =5 59 -7 45 :5" 5"A5! <D5" B-6" 64&=5 45 :8:A5; &J&=& -7 <>-" 6<: 8"&?;<&95B! <"B A8 &" ;&5A5: <7 596<9B: 6& 4 B85 ;95A<8 &-": 7-9 45 ;9- 9<A &-" -7 45 ;<&" 7 & 6<: - J5 <D5" <: ;<9 -7 45 < 4-=&A 9575B 4< - D&== 9&"A5 &" 45 &" 595: : -7 -= 489A4 6<: <" <A -7 ;&5 <"B ?59& ! : 59" ">=&:4 A-?-" :5":5 A<8>4 4- 95<B&5: ?5<": -7 5L;95::&">& : -;&"&-" -" 45 A4<9<A 59 J- 4 -7 45 A955B <"B & :;9-75::-9: =&I<J5 4 7-9J<B5 < 95;5 & &-" -7 45 :A5"5 -" 45 7-==-6&"> B< 45 95?<&"&"> -775"B59: 6595 <==-65B -4<"> &== 45 6595 B5<B

8 R8: &A5 6<: : &== 8":<&:7&5B 45 &": 98?5" : -7 45 A-": ;&9<A 6595 >-"5 45 ;59:-" &" 64-:5 &" 595: & 4<B J55" 7-9?5B! 45 ;59:-" &" 64-:5 &" 595: ! :-=--H <: :45 =&C5B! :&?&=<9 A-": ;&9<A&5: 6-8=B "5C59 A5<:5 - J5 7-9?5B! 95?<&"5B - J5 <AA-8" 5B 6& 4 $

5C59 4<B =<B -7 9-?<"A5 J55" ?-95 7< <= 4<&H (<9 8<9 - 6E-9:4&;;59: -7 459 J5<8 -9 A4<?;&- H -7 459 69-">: 9-? 4Y 5=<9 - 45 =<: ?-89"7 H =&: -7 >5" =5?5" 45 7-9?5B "-6 <=-"> ;9-A5::&- K

-5 ' <"B' ?8:&A&<"!' D"&>4 ' <"B' "-J=5!' 4<B' 7<==5"' 8"B59'
45' 5"A4<" ?5"!' 5 ' 45' 9<"D:' A-" &"85B' -' 7&==' 5C9'
<:;&9<" :' 6595'7-9' 5C59' 7-8"B' H-' 45' ;-:' -7' >=-9 ' <"B'
B<">59!' <"B' 5<A4' 795:4' 5" 48:&<:' 64-' A-":5A < 5B' 4&:'
=&75 <"B' 4&:' :6-9B' -' 459!' 6<:' ?-95' B5 59?&"5B' <"B'
?-95' 8":A98;8=-8:' 4<"' 45' =<:

4<' 6<:' -' J5' 45' 5"B' -7' <==' 4&:' i' -6' =-">' 6<:'
;>=<"B' -' 5"B895' & i' 45' W85:&-"' 6<:' ?-:' ;59;=5LS
&">' -"' <==' & :' :&B5:' 4595' 6<:' "-' ;95A5B5" ' &"' ">=&:4'
9 A- A4' 4&: -9 '7-9' 45' 9&<=' -7' < 9&"A5' 9&"A5:' 4<B'
J55"' J9-8>4 ' -' R8:&A5' J ' 5<:&59' <"B' =5:' A-":;&A8-8:'
?5 4-B:!' 64&A4' "-6' 6595' ;<::&">' -8 ' -7' B< 5' 45'
-A4=5C5"' <JB&A< &-"' 4<B' "5C59' J55"' 7-9?<== ' 95A->S
"&:5B!H<"B' (<& ' 8<9 ' 6<:' : &==' < %855"' 95>"<" ' &"'
=&">=&:4' =<6 ' =&I<J5 4' B95<B5B' 45' :8:;&A&-"' -7' J5&">'
?7&85"A5B' J ' ;59:-"<=' ?-&C5:' &7' :45' B5<=' 4<9B=' 6& 4'
459' <B' :45' =57' 459' -' 459' 7< 5' &"' A-=<"B!' -9'
;8"&:45B' 459' <7 59' 45' 7&9:' 95J5==&-"!' & ' 6-8=B' 4<C5'
;<::5B' <:' < ?< 59' -7' A-89:5' J8 ' 459' 5LA5;&-"<=' 5"S
B59"5::' 4<B' A95< 5B' < ;95:A9&;&C5' 9&>4 ' -' & :' A-" &"8S
<"A5' ><&"!' A9-6"5B' 45<B:' ?&>4 ' 4-=BK' 45&9' -9B59'
&":8=5B' J ' 45' 9&<=' -7' < :&: 59' -C595&>"' J57-95' 45'
8JR5A :' -7' <"-459' 45' 95"A4' -89' ?&>4 ' 4<C5' "-'
=-C5' 7-9' (<9 ' 8<9 !' J8 ' :45' 6<:' : &==' %855"' -6<>59' -7'
&9<"A5!' <"B' < :5":&&C5' ;5-;=5' ?&>4 ' 755=' 45&9' 4-"-89'
5"><>5B' &"' 459' B575"A5' 45' &">' <"B' 45' %855"$
?-459' --!' <=4-8>4' 45 ' 6595' A-" 5" ' 4<' :45' :4-8=B'
A-" &"85' < ;9&:-"59!' 5 ' 6595' &" 595:5B' &"' D55;&">' 459'
"=&C5!' <:' < J<9' -' 45' ;95 5":&-":' -7' 4&4;' -' 45' ">=&:4'
9-6"'H

K'6' :5' 5 ' ':8' ?<B95' 485=><"' C5A4-:'=5:'95B8"B<"'B5' 5"5==<A<;&C<'
K 85 =<' B5' :A-A&<' :5<' ;9&:-"59<!' ' 5"':8';-B59' :5'=5:' 9-A<9%<"' 5"' B<[-'
!'&C<_ ;<9<&&";5B&9A-"'5:-'=<':8AA5:S :&' =<' <A<J<95"@_ = ()*9'' '8' 2'
:&-"' B5' #!' ("><K'Y' <W85=<'A-9-"<< ' ;' 5A&5?J95' & 'C-='C
=-:'R4&>=5:5:' 4<==<"' W85' W8<" -:';9-$

J-8 <?5:R-7 A- =<"B 4595 6<: < 7&9: " - ? 8A4
#
8"5<:&"5:: (B@ :"5C<=! 45 95"A4 ?J<::<B-9 <
*M32
5; 5?J59 -= 9--B! 4-8>4 4< =& =5 -; ; -:& &-" 6<: -J5 5LS
;5A 5B79-?4&? @ :"5C<= 4<B >-"5 -" -"B-" -
A-":8= 4<: 5<8"587 5 4<B =57 (-89A5==5:&"
A4<9>5! <"B -4&?'45 69-&5 J&BB&">4&?5==45 &">!
4< &7 4J <==-65B4&: ?-459 -J5 9&5B! 45 6-8=B J5
B&:>9<A5B <"B B&:4-"-895B 49-8>4-8 49&: 5"B-?! <"B
4< &7 :45 6<: A-"B5?"5B 45 6-8=B =-:5 4&: A4<"A5: -7
4&: ">=&:4 &"459& <"A5 H &:4-"-89! 4-65C59! 6<: J8
< 6-9B! <"B -" 45 ?-95 :8J: <" &<= B<">59 45 &">@:
75<9: 4<B <=95<B J55": 5 4 @5: ?-"> 45 ;<;59:
< 4<9 =5 4<B J55": 7-8"B 4&: ?-459@: 6&== B&:&"459&
&"> 4&? A-; -7 & 6<: &? ?5B&< 5= 7-96<9B5B -
4&?! 6& 4 <::89<"A5: 4< 64< 5C59 4<; ;5"5B 4&: -6
;9-:;5A : :4-8=B "- J5 A-?;9-?&:5B ": <":659@
A<?5 J<AD 4< 45 &">6-8=B "- &" 597595 8"=5::' :J-
6<: 495< 5"5B 6& 4'5L5A8 &-": <"B 5C5": -! 4&: <"L&5
6<: A4&57= =5: 45 :4-8=B J5 A-":&B595B 4&?:5=7 < + 9
:5" &"> ;<9 ! 64&=5 4&: ?-: &" &?< 5 <BC&:59: 659-
:55?&"> &": 7<C-89 -7 5L 95?& &5:
@ 45 &">!@ 69-5 45 (<: 59 ;7 9< - 9-4&J<=f
-8>=<:! < 45 -89 &": -"B-"! @&: 65== 6&==5B &-
Q <== 4&">: <: 5 =57 4&?! <"B C59 >=<B -7 45 B&:E
QA-C59 -7 4&: ?< 59 8 4&: -;&"&-": &: & A<""-H
@: <"B 6& 4 4&: 4-"W89 4< 45 J5 < A-":5" 59 -<DH
@ 4&: ?-459@: =&75! J8 45 &: A-" 5" 4-6: 9&A = :45 JH
@ D5; ! <"B <== 459<8=B D"<&C&:4 :59C<" : 4<">5B! A4&57=
@ 45 4< J5 &": 4<"B: -9 4&: -8 ?8: B5<= 6<9&=
@ 7- 5:A456 {"A-"C5"&5" :! :55&">"5A5:: & -7 <== 4-"5: @
@ ?5"@: <7=7<&9: 95W8&95: :45 6<: <D5": <6< @H
<=:&">4<?<":6595B 4< 45 &">@: -;5": A-":5"

6 W? 3 (. &+& $% ! 6 / . $ &4 8$. &$MI@
3 $% ! 5 .35 5 %!/ $ 5 - W& . ! *1 *1 - % W **
K

-8=B "- J5 95W8&95B -9 < :-" < ?<D5 4&?:5=7 < ; <9 <><&": 4&: ?- 459 6-8=B! 45 <B?& 5B! J5 A-" 9< J-"-: ?-95: 4<B J55" B5 59?&"5B! 4-65C59R -9 >5;H?J59 459 8"B59 45 A -7 45 =<: <9=&<?5" !<"B &" A-"S :&B59< &-" -7 45 4<9B ?5<:895 64&A4 4&:7< 459 95A5&C5B < 459 4<"B:! 45 %855" 98: 5B 4<45 6-8=B "- 9<&:5 -JR5A &-": H 45 6-9: !<"B &7 45 6<: : &=95: &C5! < 8AA5::&-" A ?&>4 J5 A-": 98A 5B<: < :-; H

4<: 5<8"587 ;9< 5B 89>4=5 -; 9-A895 4&?< " <8B&5"A5! <"B 45 9&5B -49-6 < :4&5=B -C59 <8 <: < 95"A4 :8JR5A 8 4<: 5<8"587 6<: "- 4&">8"=5::5"9 <"B < 459&"5 :;-D5J54&"B 4&? 5 6<: :8:S ;5A 5B -7 J5&"> < 8&H&<" 89>4=5 -=B 4&?J9&57= 0 4< <8 6<: < C&==<&"! 64-4<B A-":;&95B -: <::<:S :&"<5 45 %855"! &" &?< &"> < 45 :<?5 &?5 4< o& 59A5::&-" 6-8=B J5 5W8<== C<&" 7-9 4&: ?&: 95:: H

49-8>4-8 5; 5?J59f& 45 A-995:;-"B5"A5 7-8"B < 4<9 =5 6<: A<9578== 5L<?&"5B A-" <&"5B 45 %855" -7 A- :& &""59 4&: -& 7-9 ?<" 5<9:! <"B E7-9?5B < A89&-8: A-&J?5" <9 -" 45 ;9-75::&-":6& 4 EH4&A4 :45 4<B J5:&5>5B =&I<J5 4 9<A5:! "- -7 459 ;<9 &A&;<&-" -"= J8 -7 459 -6" -9&>&"< &"> 4<"B! 65&5

K <=:&"> <?' -' 45 (<: 59 -7 H < ! 5; 8 $ 9 / 4<: 5<8"587 69- 5 -;9< 4&?' H' 5L59 4&?:5=7! :<":' :5 =<&::59 <J8:59 B8"5 C<&"5 B5A=<9< &-" B5 OJAA5::589 B-" =-" A-?5"A5 B`Rd H;<9=59 &A ;-89=5"B-9?&9 _ * &2 2 2 4 5; &M +A " 59A5; 5B 4<: 5<8"587! 4-65C59! 4<B=& =5 4-;5 -7 :8AA5:: -9B <?&=-" J<B <=95<B ;::-D5" n 45 &": &>< &-" 47 -89A5P5: <?5:4<B <": 6595B 4< 45 =-C5B 4&: ?-459! J8 B&B 4- =-C5 459 <A &-": 5 4<B :55" <=5 59 79-?' 459! 45 :<&B! &" 64&A4 :45 495< 5"5B 4< &7 45 B&:-J5 5B 459! 45 :4-8=B 45 95B8A5B -' 45 -9B:4&;' -7 <9"=5 (-95 4<" -"A5 :45 4<B 9&5B -' B5;-:5 4&?! <"B ;879< 5>5" &" 4&:;=<A5 -9 45 78 895 :45 6-8=B 45 ?<B5 -' A-"B8A 459:5=7 &" <"- 459 7<:4&-"! <"B 45 4-;5B 45 %855" 6-8=B :-' J5: -6 459 4< 7-9 45 95: -7 459 =&75 :45 6-8=B 4<C5 -' A-"7&"5 459S :5=7 -':< &"> 459 ;9< 59: _ 2 * ' ' ? ' ' ' A 1' # -!

K 4<: 5<8"587 -' 45 &"> -7 9<"A5! 5; ',$*,! 5; .F$ A F' # -!

T #

C&:&J=5 &" 5C59 9-8J=5 64&A4 4<B B&: 9<A 5B A- =<"B!
<"B &" 5C59 ? -C5?5" 64&A4 4<B :55?5B - 495< 5"
:A;A?JB " >=&:4 95C-=8 &-"! <"B ;9--7 6<: 7-8"B &" <J8"S
B<"A5 4<B ;9--7 J55" "55B5B 4< 45 6-9: :8:;&A&-":
7-9?5B <J-8 459 4<B 7<==5" :4-9 -7 45 95<=&
 ;95=&?&"<9 ?55 &"> -7 45 ;559: 64- 4<B J55"
;=<A5B -" 45 A-??&::&-" 6<: 45=B < &"B:-9 -" 45
< 4 x 5; 5?J59 < 4$ A -J59 4 ! 64595 45 =5 59:
6595 95<B - 45?! <"B 45 A&;459: 6595 -77595B 7-9
45&9 5L<?&"<&-" 45 %855" -7 A- :?5<"64&=5 J5&">
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:5=7! <"B A-":5" &"> 95<B&= - 45 95?-C<= <: J9&">&">
459 :- ?8A4 "5<959 45 95"A4 ?J<::<B-9
45" 45 7&9: A-":8= <&-" 6<: -C59! 4<: 5<8"587
6<: <B?& 5B - 45 %855" :;95:5"A5 5 95<B <=-8B -
459 <=5 59 79-?4&: ?<: 59! A-">9< 8=<&"> &59 -" 45L
5:A<;5 79-? 45 A-":;&9<A ! <"B 48?J= ! B&77&B5" = ! <"B!
6& 4-8 -8A4 -7 ?5"<A5! B5;L5A< 5B :5C595 ;9-A55B&">:
6& 4 45 ;9&"A&;<= -775"B59 7 4&: 6<: - J5 J5H
-"5 -7 9<"A5! 4595 6<:"- 4&"> - 75<9 45 %855"
95;=&5B >9<A&-8:= ! J8 7&9?= 45 %855" -7 A- :
>8&= ! :45 :<&B! 6<: -- ;<=;<J=5 7-9 B-8J 4-
6&:45B 4< :45 A-8=B :- J=&"B 459:5=7 <: - J5=&5C5
459 &""-A5"A5 - J5 ;-::&J=5 45 -8A45B &" -8 4"5
45%855" -7 A- :4&: -9 45 :<&B 4< 7-9 65"
5<&: :45 4<B :4&5=B5B 459 =&75 <"B 459 95;8 <&-"! <"B
4955 &?5: 45 %855" -7 A- :4<B A-":;&95B 7-9 45L
-6" B5: 98A &-" H 45 4<B 7-L>&C5" 459 45 4<B
A<8 &-"5B 459 - J56<95 4-6 :45 -775"B5B <><&" 4O

6 =. & .*3 /." ! *M$.M / .%.$ 7. .A 3 4&$ / $#&5* %&"4&$ / $.*3 &4 %.$ 7. 3 # 4&$ / $ 7*/ / $ 3&$"& .

O 45 ?5"&-"5B -"5 &": <"A5 -7 64&A4 * 4<95 7-8"B "- B5 <&=: &" 45 < 5 <;59:<8"5 A-":;&9<&-KK 7<&A 5 <9&:&= <B58L <": ;7H B58L :A-::-&:W85 =@-":8:A& <;-K =<C5"&9 859 &A <C5A =5 :A58 5 A- :5" 5?5" B5 =<B&A 5 - "5 B VC A-::5< $ '+(+6$* $!(7 ! '(3 1 A 1$*1 7 $*(

4<B' A<8 &-"5B' <8' 645"' 45' 6<:' < ' 45' -89 ' 45' A-8=B' "-6' >&C5' "-' ;9-?&:5:' <:' -' 64< ' :45' ?&>4 ' -9' ?&>4 ' "- ' 7&"B' & ' "5A5::<9 ' -' B-

5"' B< :' =< 59' x A -J59' 4$& 4 ' <:' ?<" ' ;559:' <:' A-8=B' J5' A-==5A 5B' ?5 ' 45' 65=C5' R8B>5:' < ' 5: ?&"S : 59 ' 45' 4<"A5==-9' 95=< 5B' 45' ;<9 &A8=<9:' -7' 45' ;=- ' 5' 95<B' <J&"> -"@:' =5 59' -' 45?!' 6& 4' 45$ %855"' -7' A- :@<":659' -' & ' 5' 95<B' 45' A-"75::&-"' -7' 45' :5A95 <9&5:!' <"B' 45' A-"75::&-"' -7' <J&"> -"' 4&?S :5=7" <"B' 45' 95W8&95B' 45' -;&"&-"' -7' 5C59 ' -"5' ;95:5" ' -"' 45' A-89:5' 64&A4' & ' 6-8=B' J5' 9&>4 ' -' ;89:85 ' 559:' <"B' R8B>5:' <":6595B' -"5' J ' -"5' 4< ' 45' %855"' -7' A- :' ?8: ' J5' J9-8>4 ' -' 9&<=" <"B' 45 ' 6595' 45"' 95W8&95B!' 6& 4' 5C59 ' - 459' ?5?J59' -7' 45' -8:5' -7' -9B:!' 64-' 6<:' &"' ">=<"B' <"B' -7' <>5!' <"B' "- ' 5"><>5B' 5=:5645 95' -"' ;8J=&A' B8 !' -' 95;<&9' 6& 4-8 ' B5=< ' -' - 459&"><' <"B' A-": & 8 5' <' -89 ' 4595 ' 4<: 5<8"587' 5L;5A 5B' 4< ' 45' %855"' -7' A- :' 6-8=B' J5' B5A=<95B' &"A<;<J=5' -7' 45' :8AA5::&-"!' <"B' 6-8=B' J5' :5" 5"A5B' -' B5< 4 ' 45' -8"A&=' <"B' 45' ;5-;=5' >5"59<== !' 45' :<&B!' #9595' 5<9"5: ' 4< ' :45' :4-8=B'£J5' 5L5A8 5B!' J8 ' 45' B&B' -' 4&"D' =&I<J5 4' 459:5=7' 6-8=B' A-":5" ' -' 5L 95?& &5:' &7' :45' A-8=B' 45=;' & H

5A95 <9 ' <C&:-"' A-"7&9?5B' 45' -;&"&-"' -7' 45' 95"A4' ?J<::YB-9 ' -' :--"59' 6595' 45' =-9B:' >-"5' P;-"' 45&9' 599<"B!' 4<"' =&I<J5 4' J5>Y"' -' <>& < 5' 459S :5=7' <J-8 ' <?5: ' 45"' 45' %855"' -7' A- :' 6<:' B5<B' 4595' 6-8=B' J5' "-' -"5' J5 655"' <?5:' <"B' 45' :8AA5:S :&-" ' 5' 6<:' -8 ' -7' 459' ;-659!' <"B!' <= 4-8>4' 45' "-6' :;-D5' 7<&9!' ?&>4 ' ;=< ' 4&:' ?- 45L@@:' ;<9 ' -C59' <><&"' 6& 4

K @'%8&' 5: ' B5' =<' ;9&C59' B5' -8 '=5' ;=8:;<9 ' B5' :-"' A-":5&=' 5 ' =<' C-&L' B9-&A ' W8&' 5==5' <' 5"' A5' - <8=?5'5 ' A-?28"5' B5' -8 ' =5' ;58;=5!' 5==5' =<' &<' A-"B<?"59' d' ?-9 ' 5' "5' A9-' 759<' ?-89&9@<' ! '+(!$6' $*' $ ' ;<:' W85' 5==5' C-8=:&: ' W85' =@5L5A8 &-"' !(7'*6' '(3 ' A ' N$*N :@5"' 5":8 -&: ' " ?<&:' :& 5==5' A9-&' =<

"&-&K5 <BC<" <>5 <C&:-" 9&5B - 95<::895 459! <"B
(:45 :55?5B - 95: : -?564< :< &:7&5B (8 645"
*M 2 A -J59 (-8 4<C5 B-"5 <==!(45 69- 5 - <=:&">4<?! 64- 4<B
>-"5 6& 4 45 95: - - 459&">< ! (75<9 :45 6&=D55;
(45 A-89:5 :45 45=B 6& 4 45 8D5 -7 -97-=D! 64&A4
(&: "- - <D5 459 =&75 6& 4-8 5L 95?5 75<9 A-?;5=
(459 (H

45 4<B! 4-65C59! A-":5" 5B 4< 45 -89 64&A4
:45 4<B A-": & 8 5B :4-8=B "- -"= 45<9 45 A<8:5
J8 A-"A=8B5& <"B ;<:: :5" 5"A5 (<" -7 45 -?S
?&::&-"59: ?8: 4<C5 J55" <?-"> 4-:5 64-:5 =5 59:
-7 B5C-&-" - (<9 8<9 4<B J55" 7-8"B <?-"> 459 ;<;59: 45 <9=: -7 8 =<"B <"B 8?J59=<"B!
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=5<B59: -7 45 5L;5A 5B 9&:&"> -9B (-9=5 ! 64- 4<B
:85B 7-9 4&: ;<9B-" <"B 4<B J55" 95: -95B! 6<: :5"
6& 4 45 95: - >&C5 ;&E--7 -7 4&: =- <= ! <"B 6& 4
- 459: -7 45 :<?5 ;<9 - <AD"-6=5B>5 ;8J=&A= 45
6-9 4=5::"5:: -7 45 ;59:-" 7-9 64-? 45 4<B J55" 4<=7
;95;<95B - :<A9&7&A5 4&: A-8" 9 : 45 (<9W8&: -7
L5 59 <"B <"- 459 (-" <>85 7-9?5B ;<9 -7 45 -89
64&A4 :5" 5"A5B &9 4-?<: (-95! <"B 6<" 5B A-89<>5
- ;9-"-8"A5 4&? &""-A5" ! :- 45:5 "-J=5?5" B<95B
"- 9578:5 45&9 &>"-?&"&-8: :59C&A5! <"B ?< 4<CO
J55" <?-"> 4-:5 64- (:4565B 45?:5=C5: 45 %855"
(-7 A- :(B5<B= 5"5?&5:! =5: 45 ?&>4 :55? $*
(4<C5 7<C-895B 459 J57-95 (

45 A<: =5 -7 - 459&">< : --B "- 7<9 79-? 45 5P&
8;-" < :=&>4 5?&"5"A5 9&:&"> -8 -7 45 =5C5= A-8" 9 K
4595 6<: < :?<== C&==<>5 J5=-6 <"B "5<959 45 9&C59 M
<"B! 45 A<: =5 J5&"> <=95<B 7&==5B 6& 4 <8=5 (: :-=E
B&59:! <"B 45 9<&" -7 45 %855" -7 A- :! 45 -?E
?&::&-"59: 4<B - <AA-??-B< 5 45?:5=C5: <: 45j

K <C&:-" - =:&">4<?! A *+$.+ _ = 44 5*. $!3

A-8=B' &"' 45' A- <>5:' <"B' 7<9?:' <9 &5:' -7' B-8J 78=' G
=--D&">' ;5-;=5' 6595' 95;-9 5B' -' 4<C5' J55"' :55"' &"' 45'
"5&>4J-894--B' J57-95' 45&9' A-?&">" ;594<;:' &7' -;;-9S 8'
8"& ' -77595B' -' B-' :-?5' :9-D5' -7' J8:&"5::' 4595' "#%2!&
45' ;559:@ 95 &"85:!' 45957-95!' 6595' &"' 45&9' 78==' "8?S
J59:!' <"B' <9?5B' -' 45' 55 4' 6-' 4-8:<"B' 4-9:5' &"'
<==' 6595' A9-6B5B' &" -' 45' C&==<>5' <"B' 45' "5&>4J-894--B'
' 6<:' =< 5' <8 8?"!' 45' 5 :' -7' A-J59!' J' ?-B5?'
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4<C&">' <D5"' "-' "-&A5' -7' =&I<J5 4@:' &"C& < &-"' -' 459'
-' A-"75::!' <"B' J5&">' 8"B59: --B' -' ;59:&:' &"' B5A=<9&">'
459:5=7' &""-A5" !' 45' %855"' 6&@-5' <><&"' -' 459' 95>95 S
&">' 4<' :45' A-8=B' J5' :-' C-&B' -7' A-":A&5"A5' <:' -' B5"'
64<' 6<:' :-' A=5<9=' <"B' 5C&B5" =' ;9-C5B" J' :-' B-&">'
:45' 4<B' ?<B5' &' "5A5::<&' -' J&&&">' 459' -' 9&<=!' <"B' :45'
<:' 95W8&95B' -' <":659' <"B' >&C5' A95B&' -' 45' 4-"-89S
<J=5' ;59:-"<>5:' :5" ' B-6"' -' 459!' <:' &7' &"' 45' ;95:5"A5'
-7' 45' %855"' 459:5=7 H

"5' ?-95' A4<"A5' 6<:' <==-65B' 459' @' 7' :45' :4565B'
E' < B&:;-:&&-"' -' A-"75::' &"' ;&&C< 5!' J57-95' 45' A-?$
@ ?&::&-"' -;5"5BK!' -' -"5' -9' ?-95' -7' 45' 9&C' -8"A&=!
@ 459' 95W85:' 6<:' "-' -' J5' 9578:5B @H 8' :45' 4<B'
L;59&5"A5B' =&I<J5 4@:' 65<D"5::!' <"B' ?5<"' -' ;95S
:8?5' 8;-"&' 45' =5 59:' 64&A4' A-??& 5B' 459' J5&">:' &"'
459' -6"' 4<"B' -' J5' ;9-B8A5B' <><&":' 459' 45' 4<B'
&5:-=C5B' 8;-"' 45' 4&>4' =&"5' -7' B57&<"A5' <"B' &"R8&E5B'
&""-A5"A5!' <"B' &"' <=5 59' -' 45' 8D5' -7' 8&:5!' 64&A4'
<:' :45' 4<B' "-' :5A95' <C5"85:' -7' A-?28"&A< &-"' :45'
?8:' 4<C5' &" 5"B5B' -' J5' -;5"5B' <"B' 95<B!' :45' :;-D5'
-7' 459:5=7' <:' ;95;<9&">' -' B&5' &"' 45' A<8:5' -7' 95=&>&-"'
45' J<B5' 8&:5' 4<C5' "-' 75<9' 7-9' 459' A-":<"A' 45

6' *@.# /' &' /' P 3'&4' %&' MW.(*&3' &' . *3 /."' %' 1'
%')*=44'& ' ! "' ' ')-=44'5*. $!3

;9-?&:5B -B-"-B&:4-"-89 -45 4-8:5 -7 -99<&"5!
<"B :45 B5:&95B -"= 4< 459 J-B ?&>4 J5 =<&B J5:&B5
459 ?- 459Q:! <"B 459 45<9 6& 4 4< -7 45 &"> 459
48:J<"B H

45 ><C5 "-4&" -7 B5:&9&"> < ;9&C< 5 &" 59C&56
" 45 &5 4$55"B -7 A-J59! 45957-95! 45 ?-9"&"><7 59 45 -??&::&-"59:Q <99&C<= &9 <= 59 (&=B?< 6<& 5B8;-" 459 6& 4 <8=5 !<"B ;95:5" 5B 45%855"Q:=5 59 45 95<B &-C59!<"B A-?;=<&"5B <:8:8<= -7 459 >5"59<= &== 95< ?5" ! <"B -7 459 5"5?&5:< 45 -89 45 7-8"B & :9<">5! :45 :<&B! 4< 459 (<SR5: :4-8=B 69& 5 -459 &" 7-9?-7 A-??<"B?5" ! <"B 4< :45 459:5=7 :4-8=B J5 5L;5A 5B -<":659 < < :8JR5A 45 6<:J-9" < %855"! :45 95;5< 5B! <AA-9BS &"> -459 :595- ;5B 7-9?8=< 45 9578:5B -;95SR8B&A5 459 9<"D! -9 459 9- <= J=--B! -9 45 9&>4 : -7 459 :-" 64- 6<: -A-?5 <7 59 459! -9 -:5 :- ;--9 < ;95A5B5" 7-9 - 459 ;9&"A5: <: :45 6-8=B B-&7 :45 :8J?& 5B -:- >95< <" &"B&>"& 45 6<: &>"-9<" -7 45 =<6: -7 ">=<"B! "-9 A-8=B :45 5== 64- A-8=B J5 459 ;559: - 9 459 45 6<: 6& 4-8 A-8":5=$ 59 ;<;59: 4<B J55" <D5" 79-?' 459! <"B 459 :5A95S <9&5: 95?-C5B 45 4<B "5C59 &"R895B 45 %855" J 4-8>4 -9 B55B" "5& 459 6-9B "-9 69& &"> A-8=B JÓ ;9-C5B <><&": 459 45 4<B A-?5 - ">=<"B 7-9 :8AS A-89! <"B :45 4<B J55" B5 <&"5B <: < ;9&:-"59 4595$ 45 =<6: -7 45 A-8" 9 4<B J55" "-;9- 5A &-" -459i <"B :45 6-8=B "- <":659 - 45? H

59 9578:<= - <; ;5<9 4<B J55" <" &A&;< 5B &7 <= 59 (&=B?< 6& 4B956 75649-89: <7 59 89>4$ =5 A<?5 - 459 6& 4 45 4<"A5==-9 5& 459 457

K (<9 8<9 - 45 8D5 -7 K <99< &C5 -7 ;9-A55B&">:! AK$ 8&:5! 5; *M32 $ 3 / --'C-= *.$.. $D=44 2) ! / -&

&?; &:-"?5" ' "-&@ 459' ;959-><&C5!' 45 ' :<&B!' A-8=B'
5L5?; ' 459!' =&C&">' <:' :45' 6<:' &"' ">=<"B!' 79-?' 45'
-J=&>< &-":' -7' <' :8JR5A ' 45' A-??&::&-"' 4<B' A-?5'
B-6"' 6& 4'78==' ;-659:' -' 9 ' 459!' <"B'&7' :45'9578:5B' -'
<;;5<9' :45' 6-8=B' J5' ;9-A55B5B' <><&": ' &"' 459' <J:5"A5
&==' :45': --B' 459' >9-8"B ' 45' 6<:' "-' :8JR5A !' :45'
:<&B!' <"B' 6-8=B' B&5' <' 4-8:<"B' B5< 4:' J57-95' :45' <AS
D"-6=5B>5B' 459:5=7' <' :8JR5A ' 57-&@5' -"5' 9&J8"<=' -"= '
-8=B' :45' A-":5" ' -' : <"B ' 45' 6-8=B' <": 659' -' 45'
<9=&<?5" ' -7' ">=<"B!' J57-95' 64&A4' :45' 4<B' <=6< :'
B5:&95B' -' B575"B' 459:5=7
45' =<6' J--D:' A-" <&"5B' "-' ;95A5B5" ' 7-9' 45' ;-:&S
&-"' &"' 64&A4' :45' : --B!' <"B' 45' =<6' & :5=7' 4<B' "- '
;9-C&B5B' 7-9' :-' : 9<">5' <"' <"-?<= ' 45' 6<:' <"'
&"B5;5"B5" ' :-C595&>"!' J8 ' 459' ;=<A5' &"' ">=<"B' 6<:'
<:' 45&9' -' 45' A9-6" ' -' B5 <&"' 459' <><&": ' 459' 6&==!'
<"B' -' 4-=B' 459' <": 659<J=5' -' 45' =<6:' -7' <' A-8" 9 '
4&A4' :45' 6<:' 5<>59' -' =5<C5!' 6<:' -' 95< ' 459' 6-9:5'
4<"' <' ;9&:-"59' -7' 6<9' 5 ' J ' 459' ;=<A5' &"' 45' :8AS
A5::&-"' :45' ;-::5::5B' 9&>4 :' &"' ">=<"B!' 9&>4 :' 64&A4'
:45' 4<B' J55"' <==-65B' -' <::59 !' <"B' 9&>4 :' 64&A4' =&I<S
J5 4' 4<B' 95A->"&:5B' &"' "- ' <==-6&">' 45?' -' J5' &?S
;8>"5B!' <"B' ">=<"B' &"' 89"' ;-::5::5B' A-995:;-"B&">'
9&>4 :' -C59' 459 ' 59' -J=&>< &-":' "-"5' 45' =5:' 5L&: 5B!'
4< ' "5& 459' A-??-"' =<6' "-9' : < 8 5' =<6' 4<B' B57&"5B'
45?' 45' 4<B' 89>5B' <><&": ' 45' ;95 5"B5B' B&:<J&=& &5:'
-7' <=&5":!' 4< ' A- :' 6595' "- ' <=&5": ' 45' A-8=B' "- '
4<C5' 45' <BC<" <>5:' -7' "< 89<4:< &-"!' <"B' < ' 45' :<?5'
&?5' B&:A=<&?' & :' 95:;-":&J&=& &5: ' 45' 6<:' "- ' <"' -9B&$
J<9 ' : 9<">59!' <"B' ;9&:-"59' -9' "-' ;9&:-"59!' :-C595&>"' -9'
8JR5A !' :45' A-8=B' "- ' J5' ;59?& 5B' -' A-":;&95' 45'
%855"@:' B5< 4' 4< ' :45' ?&>4 ' A-?5' 45' :--"59' J ' 459'
&"459& <"A5 ' <B' =&I<J5 4' &?;9&:-"5B' 459' 6& 4-8 '
;9-C-A< &-"!' : <&"5B' 459' A4<9<A 59' 6& 4' A<=8?"&5:!' <"B

*M32
A -JA&

B5;9&C5B 459 -9 9&5B -B5;9&C5 459 -7 459 ;=<A5 &&& 45 :8AA5::&-"_ 4< &: -: :< ! 4<B 459 -6"C59:&-" -7 459 : -9 J55" 985_ 4595 6-8=B 4<C5 J55" < ?-9<=R8: &7&S A< &-" -7 459 A-"B8A J8 =&I<J5 4 4<B :456" <7-9S J5<9<"A5 -6<9B: 459 6& 4-8 ;95A5B5" &" 4&: -9 ! <"B 45 ;95:5" B&77&A8= -7 B5<=&"> 6& 4 459 <9-:5 79-?: 45 5LA5;&-"<= 5"B59"5::: 6& 4 64&A4! 7-9 45 7&9: &?5! < ;95 5"B59 -45 A9-6" 4<B J55" 95< 5B J 45 ;-:S :5::-9 -7 & 5A&=:<&B :-?5 4&"> -7 4&:D&"B -459! 64&A4:45 :55?5B! 4-65C59! =& =5 -5: 55? 49-8>4-8 4&:B< <"B 45 "5L 45 ;-&" -7 =< 6<: <9>85B 45 6<: 95<B ! :45 :<&B! -<;;5<9 J57-95 45 -??&::&-"59:! ;9-C&B5B & 6<: 8"B59: --B <"B <AD"-6=5B>5B 4< :45 B&B" - <;;5<9 <: < A9&?&"<= -9 <: :8JR5A -" ">=&:4 R89&:B&A &-" 5 <9=&<?5" B5S A=<95 459 "5L &" 45 :8AA5::&-"! -9 =5 45 %855" B5A=<&K5 459 "5L -7 D&"! <"B :45 6<: 6&==&"> -<AD"-6=5B>5 4< ">=<"B 4<B A=<&?: 8;-" 459 :45 6-8=B 45" <": 659 &" <9=&<?5" ! -9 <": 659 J57-95 45 %855" &" ;59:-" J8 :45 B5A=&"5B -:8J?& 459:5=7 -45 R8B>5S ?5" -7 459 <BC59:<9&5:! 64-?: :45 D"56 -J5 B5 59S ?&"5B -A-"B5?" 459

5 45"! 95;=&5B 5A&=! 645" :45 <""-8"7A5B 459 &" 5" &-"! 6&== ;9-A55B -$?-99-6&" 45 A<8:5! 4-8>4 -8 J5 <J:5" <"B A-" &"85 A-" 8?<A&-8:

45 <;;5<95B :< &:7&5B 4< & :4-8=B J5 :- 5<9A4 -89 A-":A&5"A5! :45 :<&B --D -8&6 4-"-89 -B 956<9B -8 <"B -89:7-9$ -89 R8B>5$?5" <><&": ?5

8 (<9 8<9 4<B < R8: = 4&>4 -;&"&-" -7 4H 5775A -7 459 ;59:-"<= ;95:5"A5 59 ?-: <9B5" B5:&9fH 4<B J55" -: <"B A-"79-" 5B 6& 4 45 ">=&:4 "-J=5:$ 45 4<B A-"7&B5"A5 &" 459 ;95:5"A5 -7 ?&"B! &" 457 &" 5==5A ! &" 45 ?<R5: -7 459 <;;5<9<"A5 <"B J5<9&">$

45' 4<B' "5C59' 5 ' &"' ;9&C< 5' 5"A-8" 595B' <" ' ?<"!' 5LA5; ' ;594<; :' -4"' "-L!' 64-' 4<B' 95:&: 5B' 64-== ' 45' 7<:A&"< &-"' -7' 459' ;95:5"A5 ' :' :45' =--D5B' -C59' 45' =&: ' -7' -? ?&::&-"59:!' :45' ?8: ' 4<C5' :55"' 45' "<?5:' -7' ?<" ' 64-?' :45' D"56' -' 4<C5' J55"' 459' 79&5"B: ' 45' ;594<; :' 4-8>4 ' & ' ?&>4 ' J5' ;98B5" ' -' 8:5' 45' -; ; -9 8"& ' -7' :456&">' 459:5=7' -' 45?' 45' 7&9: ' =<6 59:' &"' ">=<"B' 6-8=B' J5' &"' 45' -89 !' J8 ' -"' 4< ' :A-95' :45' 4<B' "5& 459' B&77&B5"A5' "-9' <=<9?' 45' 6<:' "- ' <79<&B' -' 5"A-8" 59' 45' <J=5: ' -7' 45?' 6& 4' 45&9' ;5A&<' 65<; -"' -7' 45' -">85!' <"B' :45' 4<B' "-' 75<9' 4< ' 45 ' 6-8=B' 4<C5' 45' <BC<" <>5' -7' 459

45' :5" ' 7-9' 89>4=5 ' &"' 45' ?-9"&">!' <"B' -=B' 4&?' 4< ' &7' 45' -89 ' 6-8=B' <==-6' < ;9- 5: ' :45' 6<:' C&=&">' -' < 5"B ' -' <==-6' & !' 89>4=5 ' :<&B!' 6<:' J5 -"B' 45' -89 @:' ;-659!' J8 ' & ' :4-8=B' J5' 95A5&C5B' <"B' 5"9-==5B ' 45' 45:& < 5B!' <"B' <AW8&5:A5B

45' 4<?J59' -7' 95:5"A5!' <' >95< ' :<=--"!' :&L ' 755 ' =-">!' 4<B' J55"' <99<">5B' 7-9' 45' 9&<=' ' 45' 8; ;59' 5"B' 4595' 6<:' <' A4<&9' -7' : < 5!' 6& 4' <' A<"-; ' 95;95$ 5" &">' 45' 49-"5 5"A45:' 6595' <99<">5B' -"' 5& 459 :&B5' "' 45' 9&>4 ' :< 5' 45' 4<"A5==-9!' -9B' 89>4=5 !' J&"5' <9=:!' <"B' #&:A-8" ' (-" <>85"' -"' 45' =57 ' 6595' 4&9 55"' <9-": H' 5=-6' 45:5!' 9&>4 ' <"B' =57 ' <=:-' 595' 45' 9&C ' -8"A&==-9:' < -"!' <=:&">4<?!' 9-7 :!' <B=59!' 64-' 4<B' 45=B' (<9 ' 8<9 ' &"' 4&:' <9?:' 645"' :45' 6<:' <' J<J !' (&=B?< ' <"B' &9' ? <:' <8=5 ' "' 79-" ' -7' 45' <9=:' -"' -"5' :&B5!' :< 5' 45' 6-' 4&57' 8: &A5:' 9< ' <"B' "B59:-"!' 6& 4' (<"6--B' 45' 4&57' <9-"" -"' 45' - 459' 7-89' -7' 45' 8B>5: ' 45' -9"5

G

*M32
"#%2!&

<"B -=&A& -9$ 5"59<=! -R 4<?' <"B >59 -"! :< 5 < < : ?<=- <J=5 &? ?5B&< 5= J57-95 <"B 8"B59 45 A4<&9 -7
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45 5" 595B A-?;-:5B= &"' 45 ;=<&"' >95 B95:' 64&A4 :45 8:8<== 6-95! <"B <7 59 >=<"A&">' 9-8"B 45 9--?' --=A 459 :5< 45 4<"A5==-9 9-:5! <"B :<&B J9&57= ! 4< 45 %855"' 4<C&">' J55"' <BC59 &:5B -' 459 >95< 4< 45 %855"' -7 A- :' 4<B A-":;&95B 45 B5: 98A &-"' -7 459:5=7 <"B 45 < 5! 4<B :5" 45?' -' 45<9 64< 6<:' -' J5 -JR5A 5B <><&":' 459! <"B 459 B575"A5! &7 :45 6<:' 6&==&">' -' ?<D5 -"5

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45 6<:' &"' :-?5 4&">' 45 :<?5 ;-:& &-"' <:' :45 4<H J55"' < 45 &?5 -7 45 5"W8&9 < -9D 45 D"5fH 4< :-?5 4&">' 4<B J55"' B&:A-C595B 64&A4 -8A45f7 459! J8 :45 B&B "-' D"-6 4-6 ?8A4! -9 6& 4 64<K B&: &"A "5::

45 :<&B J-=B= 4< :45 D"56 "- 4&">' -7 <J&"> -&&

4<B "5C59 :;-D5" - 4&?! 6& 5" -4&?! -9 95A5&C5B =5 59 79-? 4&? 45 ;9-5:5B 4< :45 4<B "5C59 &" 5"B5B 4<9? - 45 %855"! -9 D"56 4< & 4<B J55" *M32 %&#$ &" 5"B5B J - 459: 45 5"W8&95B 64< 5C&B5"A5 45 4<B <><&": 459! <"B B5:&95B - :55 &

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Q ?< J5 4< <J&"> -" 6&&- 5 45:5 =5 59:!@ :45 <&B! Q J8 =5 & J5 ;9-C5B 4< 95A5&C5B 45? 7 Q <J&"> -" -9 - 459: <77&9? &! :< 45 =&5 - ;5"= @

<J&"> -"@: A-"75::&-" 6<: ;9-B8A5B! <"B <C<>5@: <"B <==<9B@: C59 795:4 75< 895 ?8: 4<C5 <D5" =&59 J :89;9&:5! J8 459 :5=7$;-::5::&-" B&B "- 7<&= 459! <"B: &== :45 A=8"> - 459 B5"&<=

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Q A<== -B - 95A-9B!@ 45 :<&B 9&:&">! Q 4< <: < @ ;9&C< 5 ;59:-" 4<C5 B-"5 "-4&"> 8"J5A-?&"> <" @ 4-"5: ?<"! "-9 <: J5<9 45 ;=<A5 -7 < ;8J=&A ;59:-" 4<C5 B-"5 <" 4&"> 8"6-9 4 ? ;=<A5 A-"75:: 4< J5&"> C59 A<9578= -7 45 :<75 -7 45 %855" <"B 95<=?! 4<C5 A89&-8:= :5&<9A45B -8 45 ;9<A &A5: <><&": & 7 <==<9B 4<B -77595B ?5 4&: 45=; :4-8=B "- 4<C5 9578:5B & @

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G J5=&5C5 45?! <"B :45 A-8=B J8 6&:4 4< 45 &" 89"
6-8=B >&C5 <: =& =5 A95B& - A<=8?"&5: <><&": 459:5=7
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- 45 %855"@: B5: 98A &-"!@ <"B 45" 6& 4 < J89: -7
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A-": ;&9&"> 45 B5: 98A &-" -7 ? B5<95: :&: 59@
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< ;=< 4&"> &" 45 4<"B: -7 <8 <"B 7-9 <8! <C<&=&">
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J9< ! :45 A-" &"85B'_
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@ 45 6-8=B A=5<9 ?5 -7 J=<?5@
89>4=5 95?&"B5B 459 -7 459 A-995:;-"B5"A5 6& 4
(-9><" <"B <>5 <"B (5"B-I< 45 <B4595B - 45&
;-&" 4< :45 4<B B-"5 "- ?-95 4<" :45 4<B <6<RHO

06<9"5B' =&I<J5 4' 4<' :45' 6-8=B' B-!_ 49-6' 459:5=7' -'" %- - -(=
45' :8;;-9' -7' 45' < 4-=&A' -659:' 45' A-"7&"5B' 459' * M32
B5"&<=' -' 45' A-":;&9<A' 7-9' 45' <::<::&"<&-"!' <"B' "-' 0+ 4"
W85:&-'" A-8=B' :4<D5' 45' A-": <"A' 6& 4' 64&A4' :45'
A=8">' -' &' ' "-' A&@-::' W85:&-'" A-8=B' 5" <">=5' 459' &'"
A-" 9<B&A &-"' 45' :&=-=5?"=' B5A=<95B' 4<' :45' D"56'
"-4&">' 5& 459' -7' <J&"> -'" -9' <==<9B
-' 45' 7&9:' B<' A=-:5B' 45' 4<B' ;9-B8A5B' :-?5' 5775A !'
J8' ;9-J<J=' =5::' 4<'" :45' 4<B' 5L;5A 5B' 45'" 45'
-89' 95:8?5B' 45' "5L' ?-9"&">!' :45' 6<:' 6<9?59' <"B'
?-95' ;<::&-"< 5' 45' A-?;=<&"5B' 4<' 459' 95;8 < &-'"
<:' <@>85B' <6<' J' 45' 695 A45B' &"7595"A5:' -7' =<6 59:'
!H 9&"A5:' <"-&" 5B!@ :45' :55?5B' -' 4&"D!' 6595"-' =&D5'
A-??-'" ?-9 <=:!' <"B' 45' C-9B' -7' < 9&"A5!' &7' :-=5?"=' '
>&C5"!' 6<:' <'" 5C&B5"A5' "-' -' J5' A4<==5">5B' 45'
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B5:A5"B' 79-?' 459' ;9-;59' B&>"& !' <"B' <;;5<9' =&D5' <
9&?&"<=' J57-95' <' A-89' -7' R8:&A5' 45' -JR5A' :45' 65==
D"A #6<:' -' 5LA=8B5' 459' 79-?' 45' :8AA5::&-"!' J8' :45'
<:' ?-95' =&D5' :459' 4<'" 8B& 4!' ?-95' $6&=&">' -' ;9<'
7-9' 45' ;5-;=5' 4<'" -' &"R895' 45' ?5<"5:' -7' 45?'" <"B'
:45' 8:5B' 6-9B:' 64&A4!' &7' 45' ?5<"' <" 4&">!' &?;=&5B'
4<' :45' 6<:' :&=-;5'" -' A-"C59:&-'" -' 9-5:<" &:?'
&7' 45' 95<=' -JR5A &-'" -' 459' 6<:' 459' A955B H' &4' <'"
<::8?;&-'" 64&A4!' A-":&B59&">' 45' ;95:5"A5' &'" 64&A4'
:45' :;-D5!' 6<:' 5L 95?5=' &">5"&-8:!' 4<' 45' A4<9>5'
<><&":' 459' 4<B' J55'" &"C5" 5B' J' 45' 89&<":' 7-9' <'
;-=& &A<=' ;89;-:5!' :45' &" &?< 5B' 4<' 45' ?&>4' 7<&=<7 59'
H=*' @ 45' 9&"A5:' 459' D&":?5"'@ ?&>4' ;9-C5' --':9-">'
7-9' 45' 57-9?<&-"!' <"B' 45&9' 64-=5' A<8:5' ?&>4' J5'
C59 49-6"' 45' 95"565B' 459' -6'" ;9-5:" :45' B5A=&"5B

K@ 59' 5"5?&5:j' :<&B' :45!' @4<B' 9-5:<"' 95=&-"!48' 45' C-8=B'
B&C8=>5B' <J9-<B' 4<' :45' 6<:' &9$' "-' :87 59' ?5' -' J5' :-!' <:' &7' 45
E5=&>&-8:@ @ 45' &?5' 6<:' 645'" ' A<95B' "-' 64<' J5A<?5' -7' ?' :-8=@
:-8&< 4<C5' J55'" &": 98A 5B' &'" 45' _ ./ "'

-:8J?& -J5R8B>?5" -7<-89 64&A4:45<AA8:5B
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A-J59 9&"A5::

89>4=5 !755=&">4&?:5=75:;5A&<==A4<==5">5B!8"B59S
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45%855"-7 45A<:=5!@45:<&B!&"<=5 59-<C&S
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459 9&>4:&" ">=<"B-45 &">-7;<&" 5;9-C5B
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><>5B<-?5&";59:8<B&">45 -;5-A-":5"
W85:&-"5B459 -8-7459=5 59:-(5"B-I<

@ 89>4=5 -<C&:-"! A &:$K E_ &::59&5:

W8- 5B' 459' -6"' 6-9B:!' 4<' &7' 459' ;89;-:5' 6<:' D"-6"!' 459' 79&5"B:' &"' ">=<"B' 6-8=B' J5' =-:' -' 459' 7-9' 5C59' 8' ">=<"B!' 45' -=B' 459!' 6<:' "-' -' J5' A-"C5 5B' =&D5' <"' 5: <5' J' 45' 6&=' -7' &:' :5=7$&?<>&"5B' -6"59" <"B' &"' 45' 5<9:' -7' <=' J8' 45' 6&=B5:' 7<"<&A:' 45' "<?5' -7' <7-95&>"' :-C595&>"' 6<:' B5 5: <J=5' <:' B5< 4

45' 6<:' "-' -' J5' W85=5B' 45' =&: 5"5B' &"' A-=B' :A-9"' 45"' 89>4=5' 5"B5B' :45' B5?<"B5B' <><&"' -' J5' 45<9B' &"' <9=&<?5"' -9' -' :;5<D' &"' ;59:-"' 6& 4' 45' %855"!' <"B' 45"' 9-:5' 6& 4' 8"B&: 89J5B' :5=7$;-::5::&-"' <"B' =57' 45' 9--?

' 4&:' ?-?5"' :45' 4<B' "-' 45' :=&>4 5:' ?&:>&C&">' 4<' :45' 6<:' 95<=' &"' ;59:-"<' B<">59' 45' 4<B' <?8:5B' :5=7' 49-8>4-8' 45' :A5"5' 6& 4' 6< A4&">' 45' 7<A5:' -7' =&59' R8B>5:' 45' 5L<?&"5B' <8=5' <7 596<&@B:!' @<:' -' @64-' 4&:'=-9B' 6<:'<"B' 4<' 6<:!@<"B' :55?5B' @5L 95?5=' @A89&-8:@ @ 45' "-5B' <=:-' 64-' 4<B' :;-D5"' ?8A4' <"B' @64-' =& =5' -9' "-4&"> @ 45' -J:59C5B' A<:8<=' -' 4&?' 4<' ">=&:4' 4&:-9' 6<:' <J=--B' -"5" J8' Q4<B' "-' @?5<"&">' &"' 459' :;55A4!@:-' 7<9' <:' <8=5' A-8=B' >< 459!' Q -' 95<A4' -' 459' -6"' A<8:5@ @ 45' 6<:' 8 59=' C-&B' -7' @<P 75<9' -7' 4<9?@H

45' ;5975A=' A-?;9545"B5B' =&I<J5 4@:' A4<9<A 59' 45' -89' 4<B' J55"' A-??&::&-"5B' -' ;<::' :5" 5"A5' "' 45' :5A-"B' B<' -7' 45' 9&<=' <' A-89&59' <99&C5B' 79-?' &"B:-9' 6& 4' @<756' 4<:' =&"5:' :A9&JJ=5B' <' ?&B"&>4 !H' 9B59&">' 45?' -' :<' 789 459' ;9-A55B&">:' &=' 45' 4<B' &E5 89"5B' 6& 4' 45&9' 95;-9' -' -"B-"' 45' <::5?J=' C<:' ;9-9->85B' 7-9' 5"' B<:!<"B' 45' ;=<A5' <;;-&" 5B' 7-9' 45' "5L' ?55 &">' 6<:' 45' <9' 4<?J59

4595' 6<:' "-' W85:&-"' -7' 45' ?<>"& 8B5' -7' 45' B<">59' -' 64&A4' 45' A-8" 9' 4<B' J55"' 5L;-:5B' 45' &">' -7

K <8=5' -' <=:&">4<?!' A' IjR$ K <C&:-"' -' <=:&">4<?!' A' -c' F_ =44' (') ! /' *1$.1 _ =44' 5*. $!3
) 6'

;<&"4<B J55" :- ?8A4 <D5" J (5"B-I<@: <AA-8" -7
45 ;=- ! 4< 45 4<B -C59A- ?5 4&: 45:& < &-"!<"B 45 4<B
*M32 J55" ; "AD5B &" A-":A&5"A5 < 4&: ;<: 95?&::"5:: -
-C5? J59 D&== =&I<J5 4 45 :<&B 6<:<" 5" 59;9&:5 :- :<&" = !H <"B
6-8=B J5 -7 :- >95< :59C&A5H - =?&>4 -B! 4< -B
45 6<: <::895B 6-8=B ;9-:;59 & ! 8"=5::;9-C-D5B J 45
J<AD6<9B"5::-7 ?5" 5 4<B 45957-95 >&C5" -9B59:
- 5W8&; <:W8<B9-" 6& 4 <== :;55B < &:J-"!<"B 4<B
B&95A 5B 45 9&"A5 -7 <9?< - A9-:: 45 4<""5= &?S
?5B&< 5= 4< 45 B55B :4-8=B J5 B-"5H 45 5C&B5"A5
4< 4<B A-"C&"A5B R49>4=5 4< 45 %855" -7 A-:
6<: < ;<9 - 45 A-":;&9<A ! 4<B A-"C&"A5B (5"B-I<
<=:- 5 -=B 45 &"> 4< :45 4<B &?;=&A& = <AD"-6S
=5B>5B & &" <=5 59 - 4&?:5=7 H

59 J-=B B5"&<=:! 4-65C59! 4<B :4<D5" :-?5 -7 459
45<959:! <"B 645" 45 "5L A<?5 ->5 459 45 &"< 59!
<: <=:&">4<?&"7-9?5B <77-9B! 6<: ?-95 <BC&:5B=
A-":&B595B 45 6 -:5A95 <9&5: 6595 J9-8>4 J57-95
45 =-9B:! <"B -;5"= <77&9?5B <: ?8A4 C&CH C-A5 <
45 4<B J57-95 B5;-:5B &" 69& &">! 64&A4 J9-8>4 <
>95< :<&:7<A &-" - 45$ -??&::&-"59:! &"<:?8A4 4<
<=J5& :-?5 -7 45?$: --B 65== <775A 5B -459! 5
A-":&B59&"> 45 ;=<&""5::<"B 5C&B5"A5 -7 45 ;9--7:!
5C59 -"5 -7 45?<7 59 4&:><C5 45&9:5" 5"A5 <><&":
459! 7&"B&"> 459 "- -"= <AA5::-9 <"B ;9&C - 45
A-":;&9<A ! J8 <=:-<" &&"<>&"59 <"B A-?;<::59 -7
459 (<R5: @: B5: 98A &-"@O

-8"B >8&= ! :45 J5A<?5 48:&"A<;<J=5! &;:- 7<A -!
8"B59 45 A -7 c 7! -7 :8AA55B&"> - 45 9-6" 45
%855"<"B 45 <;;9-<A4&"> <9=&<?5" 6595=57 - B5A&B5

@ <"::<" <5?;95:<@
K 5 <" -:59C&A&-@
O 4&=&; - (5"B-I<! 5; M _
!& C-=#
 ? < 5 "<B5 :A-A&<?5 ;<95A5
W85 B5J&< B5 :<J59 J&5" 5= "5>-A&-

;-9=-W85 :5 C55 ;-9 8"<A<9 <W8-
?5 4< 5:A9&-<= ()*9" !) =3
*+ 5 &5?J95 !& C-=C
 <=:&">4<? - &9 B6<9B
<77-9B _ %&& * *: :59&5:! C-=P&$

64<' :4-8=B' J5' B-"5' 789 459" 45' A-? ?&::&-"' -"= !
J57-95'&' B&::-=C5B!' 95=&5C&">' 45' <"L&5 &5:'-7' <?5:'-7' $$$$$
A-=<"B' J '<' B5A=<9<&-"' (' 4<' 45' :5" 5"A5' B59-><5B' -C&8J59
("-4&">'79-?' 4&?' &"' &=5'-9' 4-"-89!' J8' 4<' 45' 6<:'
&"' 45' :<?5' ;=<A5!' B5>955!' <"B' 9&>4 !' <:' &7'&' 4<B' "5C59'
J55"' ;9-"-8"A5B@H

4595' 6<:'<"' 5L;5A <&-"' 4<' ;<&"' ?&>4' : P=' ?-C5'
"-6& 4: <"B&">' 45' B&:A-C5&' 8"=' <"B' =<8B5'
<?&=-"' 4<B' :5"' <"' 5L;95::' -' 4&=&;!'&? ;=-9&">'4&?'
"-' -' J5' B&:A-89<>5B' 45' ;9-?&:5B'&7' <9?<6-8=B'
=5"B' 45?' :&L' 4-8:<"B' ?5"' -' A-59A5' <?5:!' <"B' 7-9A5'
4&?' -'&" 59;-:5'&"' 4&:' ?- 459@:' J54<=7' 8' 4&=&;!' B&:S
45<9 5"5B' J5A<8:5' -B' 4<B' B-"5'=5::' 4<"' 45' 5L;5A 5B!'
<"B' A-":&B59&">';594<;:' 4<' (<9' 8<9'6<:'<"'-J: <A=5'
-'J&:'<?J&&-"' 4<'&' ?&>4' J5' A-"C5"&5"'&7' =&I<&J5 4'
9594-C5B!' 89"5B' <' B5<7' 5<9!' <"B' B5 59?&"5B' -' -9D'
45!';9-J=5?'4&:'-6"' 6<

4<: 5<8"587@:' ?&:>&C&">:' >956' B<9D59' 5' D"56'
4<' =&I<J5 4' 6<:' 8"6&==&">' -' A-":5"' -' 5L5A8 &-"'
J8'&7':5" 5"A5' -7' B5< 4'7-==-65B'8;-"' 45' C59B&A'-7' 45'
A-?9"&::&-"!' <:'&' 6<:' =&D5=' 4<'&' 6-8=B!' 45' 4-8>4'
(<9' 8<9@:' 5"5?&5:' ?&>4' :-?5' B<'7&"B' 45' %855"'
&"' <' &5=B&">'48?-89!' <"B' ;59:8<B5' 459'&" -' :&>"&">' 45'
<99<"' (<9' 8<9' ?&>4' 45"' J5' ;8' -8' -7' 45'
<' ;9&C< 5= !' <"B'&' 6-8=B' J5' >&C5"' -8' 4<' :45' 4<B'
B&5B' *6' <A-8>4H

-9! 45' ;95:5" !' 4-65C59!' 5C59 4&">' 95: 5B' 6& 4'
H<9=&<?5"' ' 4<B' J55"' :8??-"5B' 7-9' 45' c' 4' -7'
A-J59' ' 6<:' ;9-9->85B' &==' 45' 5 4!' <"B' <><&"'
&==' 45' 5= 4' x 56' =5' -C5?J59' 4 !' 645"'&' 6<:'
-;5"5B' J 'A-??&::&-"!' =&I<J5 4' 459:5=7' "-'<;;5<9&">!'
45' -9B:' 6595' J-8"B' J ' 45' R8B>?5"' 64&A4' 45' 4<B

8888' 0' ! ! !' $

K ;9 /
K "<5<8"587' -' 98=<9!'7&-C'2_ 7 $*(' 'B

T' # ' P

<=95<B >&C5" 45 -?? -":4<B 6&A5 J57-95 ;5 &$K
&-"5B! 4< 45 %855"-7 A- ::4-8=B J5 ;8 -B5< 4'
*M32 <"B 5C59 D"&>4 <"B J89>5::4<B A-?5 79-?4&:4-?5
&- 5?J59 6& 4 <?&"B ?<B5 8;! 4< 45 ;5<A5 <"B ;9-:;5A :-7
45 "<&-": :4-8=B "-=-">59 J5 9-8J=5B 6& 4 4&:5 59"<=
9-8J=5 7 59<": 5L;=<"<-9 ::;55A4 79-?45 4<"A5=S
=-9! <95:-=8&-" 6<:;<::5B 7-9<": &?? 5B&< 5 <BB95::-
45 %855" R-&" A-??& 55-7 45 6- -8:5:6<:
<;;-&" 5B -B9<6 8;<7-9? 45 A-":;&9<A 6<:>-"5
-C59-"A5 ?-95 &": <== &:;<9 &A8=<9: 45 B5;-:&&-":
6595 45<9B <"B 9545<9B 45 :8AA5::&C5 ;<9<>9<;4:
<: 45 6595 :D5 A45B 6595 9575995B J<AD <"B B5J< 5B
&" 45 -8:5: 45?:5=C5: &"<== ! <7 59 5&>4 B< :
A-":&B59< &-"! <7-9?6<: <>955B-"! <"B 6<: ;95:5" 5B
J <R-&" B5;8 <&-"

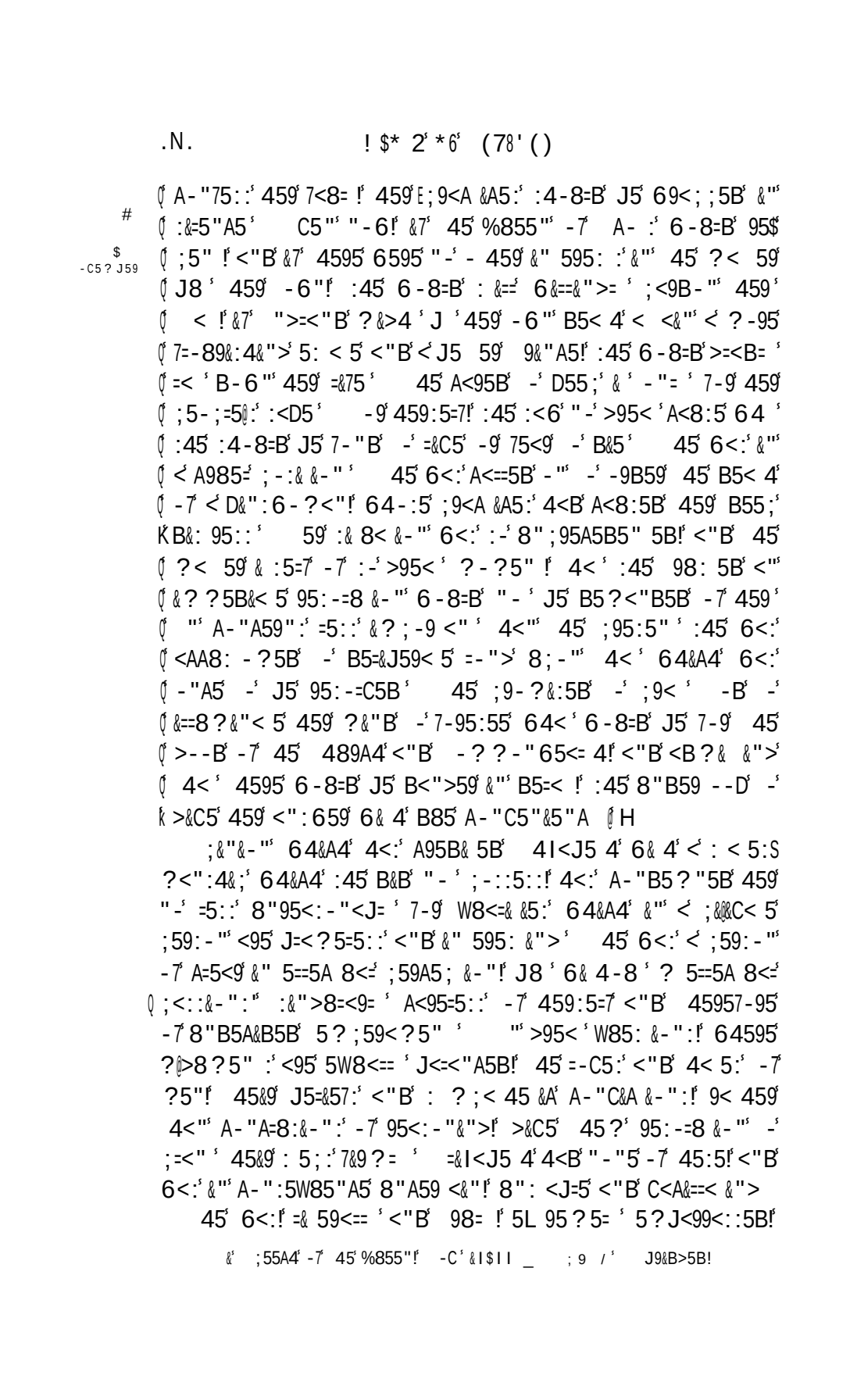
45 %855"-7 A- :!:<&B 45 -9B: <"B -9&?-":!
95><9B5B 45 9-6"-7 ">=<"B <: J5=-">&">-459$
:5=7! <"B 6-8=B "5C59 A5<:5 -:55D 64<:45 A-"A5&C5B
4<:45 4<B J55" 8"=<678== B5;9&C5B -7 45 6<:
4<9B5"5B &" ?<=&A5! <"B :-J5" 8;-" 45 B5: 98A &-"
-7 459 (<R5: ! 4<&7:45 A-8=B A-?;<::& ! :45 A<95B
"-6 4<?&>4 4<;5" -459:5=7 45 6<: <7&59A5H
4<9B! <"B B5:;59< 5 6-?<"! <"B <: =-"> <: :45 =&C5B
459 (<R5: 6-8=B "5C59 J5 &" :<75 45 6<:
;-&:-"5B 6& 4 -;59 ! <"B 6<: J89"&"> -B5: 9-
45 -:;5= &" ">=<"B <"B 5C59 64595 45 &">
-7 ;<&" 6<: ;95;<9&"> -&"C<B5 45 A-8" 9 <: :--"
<: 459 (<R5: :4-8=B J5 D&==5B! <"B 45 "<&-" 6-8=B
45" J5A-?5 45 :=<C5 -7: 9<">59:! 45 -??-"65<= 4
6-8=B J5 B5: 9-5B! <"B 45 9&>4 : -7 45 9-6"
6-8=B J5 :-=B -"<" <=&<" ;9&5: 9-?45 B< 4<
45 %855"-7 A- : A<?5 -"><="B :45 4<B J55" "
A<"D59 <&: 45<9 A-998; &"> 45 ?&"B: -7 45 ;5-;=5
-;59 6<: 49&C&"> 49-8>4 459 ;95:5"A5! <"B ?59A H
&7 ?59A 6<: :456" 459! 6-8=B J5 A985= -<P =- <=

Q :8JR5A :' 89 459' 65<D"5::'-"' 45' ;<9 ' -7' 459' (<R5:
Q 6-8=B' B5A&B5' 4-:5' 64-' 6595' 6<C59&">' -' *' -C59' -' $$$$$
Q 45' 5"5? !' <"B' 45' <::-A&< &-"' 7-9?5B' 7-9' 459' ;9- 5A$ -C5?JB9
Q &-"' 6-8=B' J5' J9-D5"' 8;!' 7-9' 45' ?5?J59:'-7' & ' 6-8=B'
Q J5' 7-9A5B' J ' 459:5=7' &" -' < C&-=< &-"' -7' 45&9' -< 4:
Q 45' %855"' -7' A- :!' &"' R-&"&">' 4< ' <::-A&< &-"!' 4<B'
Q ;<::5B' 459' -6"' :5" 5"A5' <"B' 7-9' 45' A<8:5' -7' -B!' -7'
Q 45' 489A4!' 45' 95<=?!' <"B' 459' -6"' ;59:-"!' 45 ' B5$
Q ?<"B5B' 4< ' < R8:' A-"B5?"< &-"' ?&>4 ' J5' 7-=-65B'
Q J ' <:' R8:' <"' 5L5A8 &-" @H

4-:5' -' 64-?' & ' 4<:' J55"' >&C5"' -' 4<C5' < ;5975A '
&":&>4 ' &" -' 45' ?-&C5:' -7' 48?<"' <A &-":!' <95' <::895B'
k 4<' =&I<J5 4' 49-8>4-8 ' 459' B5<=&">:' 6& 4' 45' %855"'
-7' A- :R 6<:' <"&?< 5B' J ' < ?5<"!' ?<=&A&-8:' ;59:-"<=
R5<=-8: !' <"B' 45 ' &" 59;95 ' <"B' A-?5" ' 8;-"' 459'
<":659' -' 45' ;9< 59' -7' 459' <9=&<?5" ' -"' 45' :<?5'
45-9 ' " 8& &C5' A59 <&" '&:' J5 -"B' 45' 95<A4' -7' <9>8S
?5" ' (-95' 48?J=5' 5"W8&959:!' 4-65C59!' 64-' <95' A-"S
5" 5B' -' : 8B ' =&I<J5 4@:' A4<9<A 59' &"' & :' -8 6<9B'
?<"&75: < &-":!' A<"' 8"B59: <"B' 64< ' :45' :<&B' 6& 4-8 '&
:8:;5A &">' 459' -7' 4 ;-A9&: " "< !' ?< ' A-":&B59' 45'
;95:5" ' <:' -"5' -7' 45' 756' &": <"A5:' &"' 64&A4!:45' 5LS
;95::5B'&"' ;8J=&A'459'5L<A ' ?5<"&">' 6& 4'5" &95':&"A59&

45' :;-D5' 6& 4!'755=&">' -7' 45' &C&"5' ;9- 5A &-"' 64&A4'
4<B' :4&5=B5B' 459' 79-?' :-' ?<" ' B<">59:' 45' <AD"-6S
=5B>5B' :&?;= ' <"B' >9< 578== ' 45' =- <=' <775A &-"' 64&A4'
49-8>4-8 ' 459' 95&>"' :45' 4<B' ?5 ' 6& 4' 79-?' 459' :8JR5A :
Q 59' =&75!@ :45' :<&B!' Q4<B' "-6' J55"' B<">59-8:= ' :4- ' < !
Q <"B' "- 4&">' 4<B' >9&5C5B' 459' ?-95' 4<"' 4< ' < ;59:-"' -7'
Q 459' -HC"' :5L!' -7' 45' :<?5' 9<"D' <"B' B5>955!' <"B' "5<9= '
Q <==&5B' -' 459' &"' J=--B!' 4<B' 7<==5"' &" -' :-' >95< ' < A9&?5
Q -' 7<9' 6<:' :45' 79-?' J5<9&">' 45' %855"' -7' A- :' &==' 6&==!
Q 4< ' :45' 4<B' 69& 5"' :5A95 = ' -' 459' 4< ' &7' :45' 6-8=B

$ -C5 ? J59



45' A-8=B' "- ' 5=-' 64< ' -' B-!'<"B' :475 :<&B' :-' 45' 95S
:;-":&J&=& '=< ' 6J-== ' 6& 4' 459:5=7!' 64&=5' 45' &" 595: '
6<:'=5::' 459:' 4<"' 45' 95<=?@:' -' 9- 5: <" ' ">=<"B'
45' %855"' -7' A- :' 6<:'<' ?5"<A5' -7' A&C&=' 6<9' <"B' 98&" '
-' =&I<J5 4!' &7' &"B&C&B8<== ' B<">59-8:!' 45' %855"' -7'
A- :' 6<:'<=:-'<';-=& &A<=' :5A89& ' -';8 '459' -' B5< 4'
6-8=B' J5' < ' -"A5' B95<B78== ' B&: 95::&">' -' 459:5=7!' <"B'
;8=B' J5' A-": 985B' J ' 45' A4<9& ' -7' 45' 6-9=B' &" -'
;9&C< 5'95C5&7>5 ' 45'5L5A8 &-"' 6-8=B'&"C-=C5'<"' 5" &95'
A4<">5' -7';-=&A ' 45' :4&7 :' 64&A4' 4<B' :59C5B'459' :-'
=-">' 6-8=B' :59C5' 459' "-' =-">59 ' -9' 45' 95?<&"B59'
-7' 45' 95&>"' :45' 6<:' <=?-: ' A59 <&"' -' J5' &"C-=C5B' &"'
/ <9! 64&=5' :45' 6-8=B' 9&:D' -775"B&">' 9<"A5' <"B' A- S
=<"B!' 64-:5'7&&5"B:4&;' 6<:' -7'C& <=' A-":5W85"A5' -' 459
7 59' 4955' B< :@ A-":&B59< &-"!' :45' :5" ' <' ?5::<>5' -'
45' -8:5:' <:D&">' 45?' $ -' 7&"B' @:-?5' - 459' 6< @
4595' 6<:'<'B&: &"A ' <= 59"< &C5!' &"' 64&A4' 45' ?-B59< 5'
;<9 ' -7' 89-;5' 6<:' 5" &95= ' ;95R <95B' -' <AW8&5:A5 '
45' A9-6"' ?&>4 ' J5' :5 =5B' J ' A ' -7' <9=&<?5" ' 8RR-"'
<?5:!'<"B' 45' %855"' -7' A- :' J5' D5;' &"' :-=& <9 ' A-"S
7&"5?5" ' 7-9' 45' 95: ' -7' 459' =&75!' 64595' "-' 5 5' J8 ' <!
:&">=5' < 5"B<" @:' :4-8=B' 5C59'=--D' 8;-"' 459' <><&"
' 6<:'<'A-?;=&?5" ' -' (<9 ' 8<9 @:' A4<9<A 59'<"B'
<J&=& !' 4<' B5< 4' 6<:' J5=&5C5B' -' J5' 45' -"= ' ;9&:-"'
4<' 6-8=B' 4-=B' 459 ' -' 45' A- :' 4-8>4 ' 645"' :45'
<:'<' -A4=5C5" ' -' 45' ">=&:4' <9=&<?5" ' 4-8>4 '
"-6 ' -9B:' <"B' -??-":!' <7 59' <"- 459' 655D@:' B&:i'
A8::&-"!' C- 5B' 8"<"&?-8:= ' 4<' 4595' 6<:' Q"-' - 459'
Q 6< @ J8 ' 5L5A8 &-" ' 45' -9&>&"<=' ;5 & &-"' 6<:' 5"S
9-==5B ' 45' 4<"A5==-9' <"B' 45' ;5<D59' 6595' :5" '
B-6"' -' &A4?-"B' -' :< ' 4<' 45' A=5?5"A ' :-' =-">'
:45 rC" 45' %855"' -7' A- :' 4<B' 5"A-89<>5B' 459' B<">59-8:'
J-=B"5::!' 4<' -' 45:& < 5' =-">59' 6-8=B' J5' :&"78=!' Q<"B'
Q 6-8=B' J5' =&D5= ' -' ;9-C-D5' 45' <">59' -7' =?&>4 '
Q -B @

: ;59;=5L5B <: 5C59! =&I<J5 4 A-8=B "5& 459 A-":5"
# "-9 9578:5 45 :;-D5 < =5"> 4! 95;5<&"> ?8A4 -7
$ k 64< :45 4<B :<&B J57-95! <"B :45 ><C5 < =<: 64<
-C5?J59 :45 A<==5B Q<" <":659 <":659=5::@ 45 A-"&"8<"A5
-7 45 ;95::895 6<: ;<&"78= - 459! <"B <9=&<?5"
6<: <BR-89"5B &== 5J98<9 89>4=5 6&:45B 459 -
;9-?&:5 4< @:45 6-8=B ;95759 "- - 459 ?5"@: <BC&A5!
@ J5&"> : 9<">59:! J57-95 4< -7 459 -6" ;5-;=5!@ <"B
4-8>4 :45 A-8=B 95:-=C5 "- 789 459! - <==-6 < =5<:
45 :5" 5"A5 -7 45 A-??&::&-" - J5 ;8J=&:45B @
@ 6<: ?-95 4<" < ?-" 4 -=B@ @ 6<: : &== B8?J! &
@ 6<: &?5 4< & :4-8=B :;5<D@ 4&: &7 "-4&"> 5=:5
6-8=B >&C5 45 "<&-" :-?5 :<&:7<A&-" H 45 <>955B
< =<: - <D5 4&: -"5 :?<== :5;! J8 95=8A <" = <"B
"- &== <7 59 ?<" B< :
(5<"64&=5 45 95"A4 -C59"?5"!:&"A595= <"L&-8:
- :<C5 (<9 8<9@: =&75! 4<B 9-8:5B <?5: &" -
8"6&==&"> <A &C& ! (B5 5=&aC95! 45 (&"&: 59 -7
&"<"A5 < <9&:! 6<: A-?&"> -C59 -" < :;5A&<= 5?J<::
<?5: 6<: 95W8&95B - :5"B :-?5 -"5 - 8"& 5 &" <R-&"
&" 59A5::&-"! <"B A-8=B "- 9578:5 &==&<? 5& 4 6<:
A4-:5" - >- - -"B-"! <"B 6<: &": 98A 5B - <A 6& 4
5=&aC95! 45 (<: 59 -7 9< ! 4-65C59! &" &?< 5B -
<=:&">4<? 4< 45 &">! 4-8>4 C59 5<9"5: 4<
4&: ?- 459 :4-8=B "- J5 5L5A8 5B! 5 ?&>4 J5 95A-"S
A&=5B - ?8A4 J <" &"A95<:5 -7 ;5":&-"! <"B J <
<9=&<?5" <9 95A->"& &-" -7 4&: &=5H
45 %855"! <: 8:8<=! Q 6<: "- B&:;-:5B - 95B55?
@ ;59&=: < : -B5<9 <;9&A5!@Ó<"B <?5: 4&" 5B :&>"&S
7&A<" = 4< &7 :45 9578:5B 45 ?&>4 J5 B9&C5" -
&" 59;-:5&" 5<9"5: @ 45 &">!@ 69- 5 9< - 9A4&$

K 89>J=5 - <C&:-"! -C K1$ -C 2$*2
5A * _ = 44 5 *. $!3 Ó <=:&">4<? - <C&:-"! A
Ý 45 (<: 59 -7 9< - <=:&">$ & ' = 44 43*$8'( )
4<?! A &&$&&!' A .F$ -C .!

J<=B -8>=<:! 64-' 6<:' <><&"! < ' 45 ">=&:4 -89 !
J5>&":' -' 4&"D 4<' 45 4<:' B-"5 ?-95 7-9 45 %855"
*M32 4<"' 45 4<:' 95A5&C5B <;;5<9<"A5 -7 >--B ?5<"&">!
-C5 ?J59 <"B 6&==:' -8' <"B ?5 -' ?<D5&' ?<"&75:' 4<' 45 ?<'
J5 A-?;5==5B -' 7-==-6' :-?5 -459 A-89:5'@ Q<"B J '
-B!@ A-" &"85B 9< ! 64-' 4<B B-"5 4&:' J5:' -' D55;'
<?5:' W8&5 ! <"B 6<:' 8"5<:' 7-9 45 A-":5W85"A5:' -'
4&?:5=7 &7 (<9 ' 8<&$' 6<:' :;<95B! @J ' -B! ' <?' -7
- ;&"&-"' &7 79<"D59 ?5<"&">' <"B B5<=&">' J5 "-' 8:5B
-6<9B:' 4&?' 45 :4<==' B-' 4&:' &"' 5775A ' &"' A-":A&5"A5
<:' 5' 45 &:' 9&>4' 7<:' <"B 6&==' J5 =-<4 -' <D5 5C&=
&?;95::&-":' J8' -8 D"-6' 64<' &?5 6-9D:' <==' ?5"'
B9&C5' <' 4&?! 7&9:' 7-9 4&:' ?-459! "5L' 7-9 4&:' &=5@H
"';=<&"' =<">8<>5! <?5:' 6<:' 6&==&">' -' :5==' 4&:' &"S
595:' &"' 4&:' ?-459! J8' 45 95W8&95B -' J5 ;<&B 7-9 &'
&:' 59?:' :55?&">' =&D5=' -' J5 9578:5B! 45 6<:' B&:;-:5B
-' ?<D5 4&?:5=7 B&:<>955<J=5' 5 <775A 5B -' =&:5"'
&"-95 :59&-8:=' -' 45 95?-":9<"A5:' -7 -89A5==5:! 45
&@5"A4 ?J<::<B-9' 5 8"B59--D -' :5"B <:5A-"B
95;95:5" <&C5 -' -"B-"' -7 4&>459 9<"D 4<"' 5& 4!
#& 4' <?-95 5?;4<&A 75::<>5' 8' 45 6<:' :&==' 4&"DS
&">' ?-95 -7 4&?:5=7 4<"' -7 4&:' ?-459' 5 A4-:5 9<'
<:' 45 ;59:-"' 64-' :4-8=B A<99' &!' <"B 9<!/ 4-8>4
4-' =&=&&">' 45 6-9D -"' 64&A4 45 6<:' -' J5 :5"! B<95B
4-' B5A=&"5

@ 578:5 !@ 45 69-5' <><&"' -' -8>=<:! @ 45 &">'
@ 6&==' 4&"D' D"-6' <=95<B' 64<' :4<==' A-?5! <"B &7 :45
@ B&5 6&==' W8<995==' 6& 4' ?5' &C5' :45! ' :4<==' 4<C5'
@ B-8J=5' 4<"" ' 578:5' ' "-!&7:45 B&5! ?5"' 6&==' 4&"D'
@ ' 4<C5' =5" ' 459 <4<"B' &C5' :45 J' ? ' 9<C<&=! '
@ J9&">' <: <77 -' ? ' -6"' 45<B! 5' &7 ' A<""-' 5:A456'
H' ?5<"' -' <AA5;' 45 A-??&::&-"@H

K 9<' -' -8>=<:! -C! =-$ 9. (' : * ' $ %!
:!)

=&I<J5 4E: 95: -=8 &-" 6<: " - =&D5= - J5 <775A 5B 5& 459 6< C59 B55;= J :8A4 =&?;&"> B5<=&">: <: '&("#$ 45:5 45 < & 8B5 -7 9<"A5 6<: ?-95 B<">59-8: 57-95 45 9&<= < - 45L@&"><! 9 - -" A<""5B A-;&5: -7 45 A-?;9-?&:&">=5 59: - <9&:! 6& 4 45 {-"75::&-":-7 45 :5A95 <9&5:! <"B 6<: B&95A 5B &" :456S &"> 45?: - 45 &"> - :< 4< @ 45 %855" -7 A- :@ @ ?<=&A5 4<B >9-6" - <;-&" 4< & A-8=B "-=-">59 J5 @ J-9"5 6& 4 @ =&I<J5 4 4<B 6&A5 :<C5B 459 =&75! 4<B :<C5B 459 4--89 @J :8;;95::&"> 45 &"7<?-8:=5 59: @ J5 655" 459 <"B - 4'65==!@ <"B "-6 &" :5=7$;9-5A &-" ?8: =--D -459:5=7 45 &"> 4<B 95;=&5B J J&BB&"> 4<: 5<8"587 ;9-5: <><&": 45 9&<= -7 < :-C595&>" 9&"A5::64- 6<: 5L5?; 79-?48?<" R8B>?5" !H <"B 645" 4<: 5<8"587 95;-9 5B 45 :5" 5"A5 -7 45 A-?S ?&::&-" <"B 45 ;5&&-" -7 <9=&<?5" 7-9 45 5L5A8S &-"! (B5 5=&5C95 A<?5 -C59 &" 4<: 5 - 5" 95<! <"B &7 5"795< 7<&=5B - 495< 5"

45" A-" 5?;-9<9 : <5:?5"! 6& 4 45 78==5: - ;S ;-9 8"& &5: 7-9 7-9?&"> < R8B>?5" ! A-?5 - -;;-:& 5 A-"A=8:&-":! 45 4&: -9&<" &: J-8"B - :;5<D 6& 4 B&7S 7&B5"A5 (5"B-I< < <9&: J5=&5C5B 4< 5"9 6<:&" 5<9"5: ! 4< 7-9 ;-=& &A<= 95<:-":45 B5:&95B 45 %855" -7 A- :@ =&75 - J5 :;<95B! 4< =&I<J5 4 459:5=7 6<: 5W8<== B5 59?&"5B "- - ;8 459 -B5< 4! <"B 4< :45 <775A 5B 8"A59 <&" -"= - :5==459 < < 4&>459!;9&A5 - 9<"A5 O 45 -;5 6<: -7 45 :<?5-;&"&-" <: 95><9B5B 45 &">@: B&:;-:& &-" 45 8"A&- < <9&:! < (5"S B-I<@: &": &>< &-"! 4<B 95?&"B5B 5"9 4< &7 45 %855" -7 A- : 6<: -8 -7 45 6< 45 A9-6": -7 ">=<"B <"B

@ ": 98A &-": - 9 - -"! 5;! .N_ A N

O 45 &"> -7 9<"A5 - 4<:$ 5<8"587! -C &$&& _ =44 '(3

K @ -9 C5"B5==5 ?<: A<9< V 9<"A&< C< = ()*V" '8 2 -C5?S J95 O C-& =)

95=<"B!' J-4' J ' 459' -6"' 6&P' <"B'EJ ' 9&>4 ' -7' :85$
A5::&-"!' 6-8=B' 7<=' -' 45' &">' -7' ;<&"' 4<' &@<"A5' /$$$$$
6<:!' 45957-95!' &"' 45' 7&9:' B5>955' &" 595: 5B' &"' D55;&">'
459' <=&C5' 45' 8"A&-@:' 95;-9' 4<B' ;9-J<J=' :<&:7&5B'
5L 8:!' 64-' ;59:8<B5B' 4&?:5=7' 45957-95' 4<' :45' 6<:'
&"' "-' B<">59' =&C<95I!' -"' 45' - 459' 4<"B!' 6<:'8"<J=5'
-' J5=&5C5' 4<' =&I<J5 4' 6-8=B' 4<C5'>-"5' :-' 7<9'&7' :45'
4<B' "-' &" 5"B5B' 5L 95?&&5:!' -9' 4<' A-":&B59&">' 45'
5L 95?5' &?;-9 <"A5' -7' 45' 95"A4' <==&<"A5' -' 459!' :45'
-8=B' 4<C5' B<95B' -' J9&">' 45' %855"' -7' A-:' -' 9&<='
P"=5:' <::895B' -7' 5"9 @:' A-""&C<"A5 H

&9' B6<9B' <77-9B' 9&5B' -' B&:A-C59' 645 459'
5=&HC95' A<99&5B' :5A95' &": 98A &-":!' J8' 45' <:A59 <&"5B'
"=' 4<' &7' 4595' 6<:' <"' 8"<C-65B' ;89;-:5' &"' 4&:'
?&::&-"!' "-' -"5' <' <==!' "-' 5C5"' 5A95 <9' #&==59-' 4&?S
:5=7!' 6<:' <AW8<&" 5B' 6& 4' & ' <"B' 45' >< 4595B' 4<' 45'
R5<=-8:' -7' ;<&"' 6<:' 8"B&?&"&:45B!' <"B' 4<' &7' 4595'
<:' <"' <=<9?' 79-?' <9?<!' 45' &">' A-8=B' :&=' J5'
B5;5"B5B' -"H (5"B-I<' <B4595B' -' 45' C&56' 64&A4'
45' 4<B' <=' <=-">' 5L;95::5B!' 4<' ">=&:4' ;-=&&A:' 95S
W8&95B' 4<' 45' %855"' -7' A-:' :4-8=B' J5' D5;' <=&C5!'
<"B' 45' <9>85B' 6& 4' <;;5<9<"A5' -7' 95<:-"' 4<' &7' =&I<S
J5 4' 4<B' <' ;9&C<5' 8"B59: <"B&">' 6& 4' 45' &">' <"B'
95<==' ?5<"' -' B5: 9-' 459!' :45' 6-8=B' 4<C5' B-"5' &' <'
-"A5' 6& 4-8' 6<&&">' -' ;<::' 45' <;;5<9<"A5' -7' <"'
<779-"' 8;-"' 9<"A5' J' 95R5A &">' &:' &" 59A5::&-"

?&B:' 45:5' 8"A59 <&" &5:' 5=&HC95' =57' <&&:' -"' 45'
< 4$&< 4' xF7' -C5?J59' 5' =-& 595B' -"' 4&:' 6< !' <"B'
<:' 5=5C5"' B< :' &"' 95<A4&">' <=<&:!' 64595' 45' 7-8"B

E' G 5'B&L5'W85':&'=<' 5 "<' ?89&5:5' =5' W8&:&5:5' -7&58B59' 5"' 8"<' A-:<' B5'
785:5' A&59 -' 8' <" u' W85' 59<' A-"' :8' <" <'&?;-9 <"A&<@_ 8!L' 9''8' 2'
&" 5==&>5"A&<' A-":5" &?&5" -' B5=' *,$.,' B5' "59-' =44'4!.'('3'
=5 !';85:' "-' 59<' 959&:&?&=' W85' 5"&S K <77-9B' -' 89>J=5 !' -C'*,$'
5"B-' 5"' `=' -B<' :8' 5:;59<"I<';<9<' .,_ =44' '(3
=&J9<9:5' B5' 8' <" /K' B5'#' (<>uKH

#

*M32
-C5?J59

=5 59: 79-? 4<: 5<8"587! J&BB&"> 4&? 4<: 5 -9 45
6-8=B A-?5 -- =< 5 4595 6<: <45<C 6&"B 79-? 45
:-8 4$65: ! J8 45 A9-::5B &" :;& 5 -7 45 65< 459 45
7-&?B <A<99&<>5 6<& &"> 7-9 4&? < -C59! <"B 6<: &"
-"B-" -" (-"B< ! 45 5 : x 5A5?J59 & 5 6<:
95A5&C5B J 45 ;5-;=5 6& 4 :9-"> B5?-": 9< &-": -7
B&:;=5<:895 45 ;-=& &A<= A-": <"A -7 5"9 4<B 4-
95?-C5B 45 ?5?-9&5: -7 <&" <9 4-=-?56! <"B 45
?J<::<B-9 6<: :8:;5A 5B -7 4<C&"> J9-8>4 <::<::&":
&" 4&: 9<&" - B- 45 6-9D 64&A4 <J&"> -" 4<B 7<&=5B
- B- 45 %855" 9578:5B - :55 4&? P= :45 4<B >&C5"
459 <":659 - 45 <9=&<?5" E " 45 5 4 x 5A5?J59
! 45 B< -7 45 <BR-89"?5" ! :45 ><C5 4&? <"B
4<: 5<8"587 <" <8B&5"A5 < &A4?-"B
45 95A5; &-" 6<: 7-9?<= <"B A-=B 45 %855" 6<:
&" 459 A4<&9 -7 :<5 5&A5: 59! 64- 4<B 95 89"5B 79-?
K 45 -6 -8" 9&5:! 6& 4 < -"! 89>4=5 ! <"B -459:
-7 45 -8"A&=! :--B J54&"B 459! 64&=5 5=&<C95:;-D5
45 &"> -7 9<"A5! 45 :<&B! 95>95 5B <: B55;= <:
<" -"5 45 6&AD5B B5:&>": -7 459 (<R5: @: 5"5?&5:
-6 7<9 45 %855" -7 A- : 4<B :4<95B 45&9 >8&= 45
&">A-8=B "- ;95 5"B - :< ! J8 45 4<B 7<&=5B - 8"S
B59: <"B 64- &" :8A4 < ?< 59 A-8=B HJ5 459 <AA8:59:
-9 64- A-8=B J5 459 R8B>5 8J=&A ;9-:5A8 -9: ?&>4
A4<&@>5 < :8JR5A ! J8 45 %855" -7 A- =<"B! 45 %855"
-6<>59 -7 9<"A5! <"B :&: 59$&"$=<6 -7 & : &">! 6<:
"- :8JR5A ! <"B - ;<:: :5" 5"A5 8;-" 459 6<: - C&-=< 5
45 ;959->< &C5: -7 ;9&"A5: -?;=&?5" &"> 45 %855"
-" 45 ?<R5: -7 459 <;;5<9<"A5 <"B -" 45 95;8 < &-"
64&A4 :45 4<B 5<9"5B 49-8>4-8 45 6-9=B 7-9 C&9 85
<"B 6&:B-?! 45 B5A=<95B 4&?:5=7 8"<J=5 - J5=&5C5 4<
45 7<9$7<?5B =&I<J5 4 -7 ">=<"B A-8=B 7-&@>5 45
6-9B: -7 =< -! 4< A-??-" ?-9 <=: 6595 =5<B <"B
&9-"! J8 4< 45 ?<59&<= -7 D&">: 6<:>-=B
" 45 :<?5 C5&" -7 945 -9&A 45 ;9-A55B5B - 45

?< 59' -7' 4&:' <9>8?5" ' 59' ?&"&: 59:!' 45' :<&B!' ;95S
5"B5B' 4<' 64&=5' 45' %855"!' -7' A- :' :89C&C5B!' 459' =&75E
6-8=B' "5C59' J5' :<75' 45' 98 4' 6<:' 9< 459' 4<' 45'
%855"' -7' A- :@ B5< 4' 6-8=B' <>>9<C< 5' 459' B<">59'
45' < 4-=&A' -659:' 6595' 495< 5"&">' ">=<"B' &"' =&5'
&" 595: :' -7' 95=&>&-"!' 9< 459' 4<"' &"' 45' &" 595: :' -7' 45'
%855"' -7' A- :' 45' 5L5A8 &-"' 6-8=B' J8' 7?"&:4'
45?' 6& 4' <' 795:4' <"B' ?-95' :;5A&-8:' ;95 5L'7-9' 45&9'
5" 59;9&:5

@' 5==' -8' (<B<?!@ 45' :<&B!' @ 4<' &": 5<B' -7' <9S
95: &">' 45' &"C<:&-"' 6& 4' 64&A4' 4&:' 95<=?' &:' ?5"<A5B!'
-8' 6&"' -"=' ;95A&;& < 5' & ' =& 459 -' 45' %855"' -7'
A- :' 4<:' J55"' 45' <9>5' 64&A4' 4<:' A<8>4' 45' <& -6:'
4<' 4<C5' J55"' <&?5B' <' -89' ;59:-"' 45' &:' <: -"5'
4<' -8' 4-=B' &"' -89' 4<"B' =&">' &' <' -89' 5"5? !'
<"B' &' &:' >-"5" -8' A<"' 495< 5"' 6& 4' &' "-' ?-95'
)o=' 459' <:' :-?5' <BC&:5' -8!' <"B' 459' B5< 4' 6&P' <9?'
-89' <BC59:<9&5:' 6& 4' B5:;<&9!' <"B' 6&==' >&C5' 45?' <'
?-95' ;=<8:&J=5' >9-8"B' -"' 64&A4' -' <::<P' -8' -89'
(<R5: '&:' <' 6&:5' <"B' ;98B5" ';9&"A5:' 65' &"' 9<"A5'
4<C5' -J:59C5B' -8' A=-:5=' 7-9' 45:5' "&"5 55"' 5<9:'
-8' 4<C5' 8:5B' 45' ;95 5":&-":' -7' 45' %855"' -7' A- :'
-' :8AA55B' -8' -"' 45' 49-"5' -7' 45:5' E5<=?:!' <:' -89'
:9-">5:' ;9- 5A &-"!' <"B' &' &:' <' ?<L&?' <?-">' 8:' 4<'
4-:5' 64-' A4<">5' 45' J<:5' -7' 45&9' ;-=&A' <95' -"' 45'
<' -6<9B:' <' 7<==!' 45' ;<"&:4' (&"&: 59' &"' <9&:'
@:< :' -;5"=' 4<'&' 6&==' J5' -' 4&:' ?<: 59@:' <BC<" <>5' &7'
@ 45' %855"' -7' A- :' &:' B5: 9- 5B!' J5&">' <::895B' 4<' 45'
@ ">=&:4' < 4-=&A:' 6&==' 45"' >&C5' 4&?' 45&9' 8"B&C&B5B'
@ <==5>&<"A5H -89' (<R5: ' 4<:' 95&>"5B' =-">' <"B

E' E 5'C-8:' B&9< !' (<B<?5!A5' W8&'
&&<' 5: `' <::89`' ;-89' C`9& <J=5' ;<9'
->' ;59:-""<>5' B@4-""589' W8@8">'
59 <&"' ?&"&: 95' B@8">' 9&"A5' W8&'
#-8:' ;58'5: 95' :8:;5A 5' B&'-8C59 5S
?5"' W8&&=' :59-&' J-"' ;-89'=<'>9<8$

B589' B5' :-"' ?<&: 95' W85'=<' - "5'
B@ :A-::5'78:' B5:R&' ;59B85!' ;-89' A5'
W8&&=' 5:' J&5"' <::89`' W85'=5' ;<9 ' B5:'
< 4-=&W85:' ">=- :' 55' 9<">59-&'
5" &a95?5"' B8' A-:' B5' :-"B&'
?<&: 95@ !

#
C <
+,4; '4"

*M32

4<; ;&= ! J5A<8:5 :- 7<9 -8 4<C5 ;9575995B ?-B59< &-"
-C&-=5"A5 -"-89 ;-&" :A=5<9= -6<9B:A=5?5"A
" 595: &: < =5<: 5W8<== J<=<"A5B 4&"D -7 45
R8B>?5" -7 ;-: 59& <"B -7 45 "<?5E 64&A4 -8
6&== =5<C5 J54&"B -8 ;<95 4&: =<B <"B -8 6&==
=< ? ?<: 59 8"B59 <" 5 59"<= -J=&>< &-"! <"B -8
6&== 5<9" &? ?-9 <= 95"- C" 7-9 -89:5=7 H

=&I<J5 4! ?8: 4<C5 ?<" &?5: 95;5< 5B 45 :<?5
<9>8?5" : - 459:5=7" J8 5& 459 5=&HC95: -9< -9
:-8"B5B 4-==-6! -9 45 &"> 4<B :5" 459 :-?5 ;9&C< 5
?5::<>5 4< 45 6<: -"= ?-C&"> 7-9 7-9?@: :<D5! -9
5=:5! 64&A4 &: <=:- ;9-J<J=5! :45 ?< "-4<C5 98: 5B
4&? 5 4<B -8 6<9B= :8J?& 5B - 45 5<>85
45 4<B ?<B5 <"- 459 <;;=&A< &-" 7-9 (-9><"! <"B
(-9><" 6<: : &== 6& 445=B 79-?459" 5C5" &" 45 <: &=5
45 4<B J55" 5"<J=5B - ;=- <"- 459 ?89B59! <"B <: &
:55?5B 6& 4 &? ;8"&

" <=-8B C-&A5! <"B 459 75< 895: 6-9D&"> 6& 4 ;<:S
:&-"! :45 95;=&5B 4< :45 6<: :-99 (5=&HC95 :4-8=B
4<C5 A-?5 - ">=<"B -" :- J<B <" 599<"B 45 <;S
;5<=5B - -B -R8B>5 J5 655" 459 <"B 45 %855" -7
A- : Q 45 %855"E-7 A- :! :45 :<&B! Q4<B :-8>4
:45= 59 &" 459 95<=?! 4<B 95A5&C5B "- 4&"> J8 D&"B$
"5::4595! <"B &" 95A-?;5":5 4<B 4955 &?5: :-8>4
459 =&75 - ?&:7-9 8"5 64&A4 4<B 5C59 -C59 <D5"
K459 4<B A-: 457 :- ?<" 5<9: <: 4&: =<: A-": ;8@<A @
45 4<B 95<B <: ?<" J--D:! :45 :<&B! <: <" ;9&"A5
-9 ;9&"A5: &" 49&: 5"B-?! <"B 4<B "5C59 ?5 6& 4
<" 4&"> :- : 9<">5<"B ;<&"78= 59=&75 6<: "< 89<==
C<=8<J=5 - 459! <"B :45 A-8=B "- J5 :<75 &" 459 -6"
95<=? 45 6<: < ;--9 =-"5 6-?<" :899-8"B5B J
:5A95 5"5?&5: 64- 6595 ;59;5 8<== :55D&"> - D&P 459 H

K ;55A4 -7 (5=&2C9-! -C . ,$ K 5;= -7 45 %855" -7 ">=<"B
5A , J9&B>5B ! & C-= &C D :!)

45' -"5' 6<:' 8"7<C-89<J=5!' J8 ' 45' <": 659' 6<:' "- '
7&"<=' 45' ?J<::<B-9:' =57 ' 459!' <"B' <7 596<9B' 89>4$
=5 ' <;B' <=:&">4<?' 5"B5<C-895B' ;9&C< 5= ' -' A-"C&"A5'
45?' 4< ' 45' 5L5A8 &-"' 6<:' <J:-=8 5= ' "5A5::<& ' '
655D' =< 59!' 45' %855"' :5" ' 7-9' 45?' <><&"!' <"B' 5"S
W8&95B! 64 ' (-9><"' 6<:' "- ' :5" ' -C59' <7 59' 4&:' 795:4'
A9&?5' 45' ;-&" 5B' -' 8":B-"!' 64-' 6<:' : <"B&">'
"5<R!E<"B' B5A=<95B' 4< ' &7' 459' -6?' A-8:&"' 4<B' A-":;&95B'
<><&": ' 45' =&75' -7' 45' &">' -7' 9<"A5!' :45' 6-8=B' "- '
4<C5' ;9- 5A 5B' 4&?' ' <"B' :45' :<&B' :45' 6<" 5B' (-9S
><"@:' 5C&B5"A5

@' 45' %855"' -7' A- :!@ 5=&aC95' <": 6595B!' @4<B' :-'
@?<" ' 6& "5::5:' <><&": ' 459' <=95<B ' &"' ">=<"B' 4< '
@ 4595' 6<:' "-' -AA<:&-"' -' 75 A4' <"- 459' 79-?' 9<"A5 '
P 45' &">' A-8=B' "- ' J5' :-' &"48?<"' <:' -' :5"B' -C59' <
@D"&75' -' A8 ' 45' 49-<' -7' 4&:' :&: 59$&"$=<6@ @ &:'
?<: 59' 6<:' 6<& &">' <"L&-8:= ' 7-9' 45' %855"@:' 95:-=8S
&-"' 7' 45' 6<:' -' 8"B59: <"B' 4< ' 45' 95W85: ' 6<:'
K9578:5B!' 45' ?8: ' <:D' ;59?&::&-"' -' 95 89"' -' <9&: @

45' :<&B' :45' 6-8=B' >&C5' 4&?' <"' <": 659' &"' 4955' B< :!'
H"B' :-' -"A5' ?-95' B&: ?&::5B' 4&?

=&I<J5 4' 6<:' ;594<;:' "-' ?-95' A59 <&"' 4<"' 45'
E#-9=B' >5"59<== !' 64< ' 9<"A5' 95<== ' 6&:45B!' <"B' A- $'
P"B'4<B' J5A-?5' 5W8<= ' ;59;=5L&">' P"B-8J 5B= ' <?5:'
H<:' 6&==&">' -' B9&C5' < J<9><&"' 7-9!<AW8&5:A&">' &"' 4&:'
?-459@:' B5< 4' J8 ' =&I<J5 4' 6-8=B' "- ' >&C5' 4&?' 4&:'
;9&A5!' <"B' & ' 6<:' ;5&75A = ' ;-::&J=5' 4< ' &"' 4&:' B&:<;S
;-&" ?5" ' 45' ?&>4 ' 95C5">5' 4&?:5=7' <:' 45' 4<B' B-"5'
EJ57-95' =<8B5' <?&= -"' 6<:' : &==' ;95::&">' 7-9' ;<"&:4'
<::&: <"A5' &"' A- =<"B!' <"B' (5"B-I< 6<:' 6-9D&">' 4<9B'
-' -C59A-?5' 4&=&;@:' &"B&:;-:& &-"' ;<"&:4' 4-"-89!'
(5"B-I<' :<&B!' 6<:' A-"A59"5B' &"' ?<D&">' <"' 577-9' 7-9'
45' %855"' -7' A- :' 45' 9&:4' 5" 59;9&:5' 4<B' 7<&=5B'
J5A<8:5' &' 6<:' ?<"<>5B' @;-9' J-"5 5:@_ J ' ;9&5: :@ A<;:

45 ;=<":7-9&"C<B&"> ">=<"B4<B7<&=5B49-8774 45
0$$$$$ 65<D"5::-7 45 ">=&:4 <4-4A: 8 6&4 A-=<"B
L-P J59 45 6-8=B J5 -" :-=&B >9-8"B 45 =-9B: 4595
6<" 5B J8 <4<"B78=-7 ?-"5 <"B 7&C5-9:&L 4-8:<"B
-7 <9?<@: :-=B&59: & 4 45 45=;-7 45:5! 45 4<B
8"B59 <D5" -D&== 45 =-9B:-7 45 -459 7<A&-"! <"B
45 &9D ?&"&: 59:! -<D5 ;-::5::&-" -7 45 7-9 95::5:!!
<"B -B&:;-:5-7 45 &">"B 45 95<=? <?5:4&?$
:5=7 6<: :5A95 = -" 45&9 :&B5" 45 4<B A-":5" 5B -
45&9 8:&">" ?5<": 45 A-8=B 7&"B -5L 9&A< 5 4&&
79-? 45 ">4:4;<9 !<"B 6<: :45=C&">< J5 59 B&:S
;-:&&-"&"95=&>&-" 4<"<" ;95C&-8: &?5H

<B 4&=&;A-?5 7-96<9B 5775A 8<== ! <?5:@: A-"S
C59:&-" 6-8=B ;9-J<J= 4<C5 ;9-:;595B 8 89"&&&
6<: 8"6&==&"> -:;<95 9--;:! <"B 6<:-4596&:5 8"S
7<C-89<J=5" <"B 4&=&;! &" 5" -" 45 :8AA5::&-" 7-7
4&?:5=7! 6<: 8"6&==&"> -5?J<99<::4&?:5=7 6&4
-8 4 -7 64-?-" 5C59 >9-8"B ;&BC< 5 <"B ;8J=&&H
45 4-8>4 <: &== <: ;-::&J=5 5& 459 <9?<@: -JR5AS
&-"! 4-65C59! "-9 4&=&;@: ;-=& &A: 6595 78== &?B59$
:--B &" A-=<"B" < ;95::895 A-" &"85B -J5 =<&B
8;-" <?5: -<AA5; ;<"&:4 45=;! <"B <?5:<:8:8<=
:4877=5B J5 655" 45 6-;<9 &5:! <"B 45=B -8 7-9 <:8JS
:<" &<= A-":&B59< &-" J57-95 45 6-8=B ;9-?&:5 =&I<S
J5 4 -:& : &P 5 A-"A5<=5B 4&: 4<"B A<9578== ! :
A<9578== 4< -89A5==5: :< : 45 A& &I5": -7 B&"J89>4
4-- 5B 4&?&" 45 : 955 <: 45 ;<::5B 5 ?<&" <&"5B
< < ;8J4A <J=5! 4< 45 &5: -7 J=--B (<" < ;9-8B A-

K 45 <4-=&A=-9B: -7 A-=<"B :-=B5:7< -95A&<5":5A95 -!;59-4-=$
(5"B-I< :< : 4<B :5" 4&?6-9B ><J< W85=5 4<J=<:5" 5" ?<59&< B5
4< 45 4<B EA-":5"&?&5" -:5S 95=&>&-"!@\A<=()*9''8=2
A95 -B5= -;<9<;-"5=55"=&J59 <B 5A&5?J95 & C-&C
;-9 A8<=W8&59 ?5B&- W85 785:5! K@%85=5 :<">B5 ;<95" <>5 -8
W85 < 5= 5 Y=-: <4-=&A-:"- B@<7&-"& `"5 "-8: -J=&>5 <" WKO

6-8=B' 4<C5' 4<B' 4&?' 495< 5"' =&I<J5 4' 6& 4' 6<9' 5
:<&B' ;-:& &C5=' 4<' 45' 6-8=B' B-' "- 4&">' -7' 45' D&"B' :-' $$$$$
=-">' <:' 4&:' ;59:-"<=' ;9-:;5A :' 6595' 95:;5A 5B!H' 5C5"' &7' G+,0; 0"
4&:' ?-459' 6595' 5L5A8 5B' (45' &">!@ 69- 5' -89$
A5=5:!' (B5:8@5:' 5C&B5" =' -' 95&>"' <=-"5' &:' -6"'
(6&:4' 7-9' 4&:' ?-459' &:' 4<' :45' J5' A-"7&"5B' 45"A57-9$
(<9B' &"' -"5' 9--?!' "5C59' ?-95' -' :;5<D' 6& 4' ?<"' -9'
(-?<"' 5' 6-8=B' 4<C5' 459' B5A=<95B' 7-9?<==' :8J$
(R5A' -' 45' =<6:' -7' ">=<"B!' -' J5' 9&5B' <"B' ;8' -'
(B5< 4' &7' :45' A-":;&95' <><&"!' "-' <:' %855"' J8' <:' <
(;9&C< 5' ;59:-"!' <"B' <:' C<::<=' -' 45' %855"' -7' ">S
=<" B 5 !' <==' 45' 64&=5!' 45' 4<B' 4&:' &" 5==&>5"A5'
(4' =<8B5' <?&= -"' -' 7<==' J<AD' 8;-"!' 6& 4' 64<'
89;-:5!' 645 459' 4-"5:!' 4<=7' 4-"5:!' -9' 64-==' B&:$
"5:!'&'&:' ;9-7& =5::' -' 5"W8&95' 789 459
9<!' ?5<"64&=5!' 6<:' :5"' 6& 4' -J59' (5=CP=5' <7 59'
C5& 4!' &"' <;;5<9<"A5' -' :8;;-9' 5=&5C95!' &"' 95<=&' -E
B5?<"B' A-"B& &-":' -' 64&A4' 9<' 6<:' "-6' <6<95' 4<'
&==&I<J5 4' 6-8=B' 9578:5' A-":5" " <"B' -7' 45' 5775A' -7'
45' 9578:<=' 8;-"' A- =<"B' <"B' 8;-"' 45' &">!' 45' A-8=B'
-"R5A 895' <:' &?;5975A = !' <:' <" ' -"5' 5' 69- 5' -'
H<=:&">4<?' -' <;-=->&:5' 7-9' 4&:' A-?&">' 7' 45' 6<:' "-'
985' -' 45' %855"' -7' ">=<"B!' 45' :<&B!' (45' 6<:' A-" 5" '
(-' 4<C5' 4&:' 45<B' A8' -77' -"' <:A<77-=B@ -' 4<C5' 9578:5B'
45' ?&::&-"' 6-8=B' 4<C5' 98&"5B' 4&?!' J8' 45' ?5<"&">' -7'
7!' 45' B5A=<95B!' (6<:' ?-B5:' <"B' "-' ?5"<A&"> @ 7' 45'
%855"' -7' A- :@ =&75' 6<:' "-' -' J5' :;<95B!' 45' 95A-?$
7&5"B5B' 4<' 45' <"B' 4&:' A-?;<"&-"' (:4-8=B' J5' :<5B'
(J' 45' 6<' -9' A-??<"B5B' -' 95 &95 @O

*<"< &H W85"-8:'<C-":'5"C59:'A5&&=:' 798: 959' B5' :-"' &= 95' d' =<' :8AA5::&-"'
"5' 5-"' B5' "-95' :<">@_ *+ D B@ ">=5 5995 @
$*')P !! L'8' 5A' $ ' 7 D K -89A5=5:' -' B@ :"5C<=!' 5A'
1*9!R'B .+% F+<R7 $*('R'B!
K 5'6-8=B'"-'>-' -'6<9!'45':<&B! O 45' (<:59'-7' 9<' -' <=:&">$
E&"5:?A:' <BC5"<"' =<' ?-9' B5' :< 4<"&!' 5A' *F$.F!' 5A' .+$F+ _0
4=95!' :&"-"' 5"' A<:'W8@-"'=5'C-8=8: =44'43*$8'()

45 &" i! & :55?:! 6<: "- A-" 5" 5B 6& 4 45 $ B5A=<9< &-" 0-7 45 A-??&::&-"!K <"B B5:&95B -J <&" && -C& J59 H =5><= 5"><>5?5" ! 4< "- B5A955 "-9 ;9-A5B895 &" 4<6 <><&": R4&: ?- 459 :4-8=B ;95R8B>5 <" & =5 4< e45 ?&>4 ;95 5"B -45 A9-6" 645" & :4-8=B ;=5<:5 -B -A<=& ;59 (<R5: !H

0 45 :5" 5"A5 4<BEJ 4&: &?5 J55"$;8J=&:45BE 6< 95A5&C5B J 45 KQ;5-;=5 6& 4 <" -8 J89: -7 6&=B B5=&>4 E & E& && -659 <"B : 55;=5 45 J5==: A9<:45B E-8 ! 8"A5<:&">r 9 < 64-=5 B< <"B "&>4 489A4 @<":65=B5B A489A4i &== 45 "56:4<B J55" J-9"5 -45 789 45: >=5" &" 8?J59=<"B -"B-" 6<: &P&8"&$ "< 5B @ <>>- : J=<I5B &" -6" <"B C&==<>5" <"BEH< :4JPE= -7 5L8= < &-" 9-:5 J8 -7 5C59 =- <= 49-< K 9- 5: <" "><"B 7-9 45 7&9: &?5 75= & :5=7 :5A895 45 ;4<" -?-7 A&C&= 6<9 B&:<; ;5<95B s#4&A4 4<B 48"H =&D5K <$"&>4 ?<&&5 -C59 45 A-8" 9 " <"B 9<B5:?<"! <"B 5 ?<"! <"B ;5<:<" ! < =<: B956 45&9 J95< 4 7955= -9 65" 7-89E 4-89: 45 -"B-" J5P: 9<"> -"V ;5<=&&&>" &" 5=&HC95@: 5<9 45 B5< 4$D"5== -7 (<9j 8<9 @ 45 %855" 4<B E;9-?&:5B 4&?' <" <": 659 4955 B< : 5 <AA5; 5B 45 ;8J=&A< &-" -7 45 :54E 75"A5 <: <A-"A=8:&C5 5L;95::&-" -7 459 B5 5&@?&"< &-7=& <"B! 6& 4-8 9-8J=&"> 459 - 49-6 & &" - C-9B: -7 :55D&"> <"- 459 &" 59C&56! 45 69- 5 - :< 4< <: 4&H ?<: 59 6-8=B 4<C5 <D5" 459 A-":5" - 4&: 5" 95< <: 45 4&>45: -7 7<C-89:! :- 45 6-8=B 95><9B 4&: :&: 59 &"$=<6@: 5L5A8 &-" <: < ?-9 <= -775"A5 <"B 45 B5:&95i 459 < =5<: - >9<" :877&A&5" 95: ;& 5 - 5"<J=5 4&?' - A-??8"&A< 5 6& 4 <9&: B5;8 < &-" -7 95"A4 >5" =5?5" A<99&5B 45=5 59 - &A4?-"B 45 %855 6-8=B "- :55 45?! J8 95;=&5B 49-8>4 <=:&">4<&& 4< :45 6-8=B A-":&B59 45 95W85: ! <"B :--" <7 59 :5"

B * %& * / "#. .5&$0 " "&$*. W % *M32 _ =44 43*$8'()

< C59J<=H <": 659 4< ! :45 6 -8=B <=- 6 65=C5 B< :! +
45 4<9B5: 9&B59 &" 45 5?J<:: 6<: &": <" = - " 4&: _ 9$
6< - <9&: &5 95 89"5B 6 - B< : J5H95 45$ &?5 HA? 9
6<: -8 ! 6& 4 <" <": 659 79-?: 45 &">: -j 4<: 5<8"587
<: :&"A595 <; ;<95" = <: 45 ?-: :&">=5 ;89;-:5 A-8=B
B&A < 5 5"9 8"B59 --D! <"B 45 :d&d 4< 45 6<:
:;5<D&">7-9 45 4-8:5 -7 8&:5 <: 65= <: 7- 4&?:5=7!
4< &7 45 %855" -7 A- :@ =&75 C6<: :;H5B :45 :4-8=B
95=&"W8&:4 459 A=<&?: -" 45 :8AA5::&-"$7-9 5C59! <"B
"5C59 9-8J=5 ">=<"B!E ?-95 5 J<B5 4Y: 5<'&&"587E
=<C&:4 ?-"5 <?-"> 45 -8"A&=! &4 ?-"5 @ 6-;=B!EB-
>--B 7 "- 4&"> <C<&=5B <"B &7 4` %855"! ;59:&: 5B!
45 :<&B 4< 9<"A5 A-8=B "- ;<::& -C59KH ! ! E
6<: "-6 45 655D J57-95 4 &:z "&<: 45 %855"/!
4<B >-"5 -955"6&A4 7-9 45j8:8<= 4-= B< ! <"B
5=&aC95@:E 7&;<=/ &" 59&B56 6<: ; : ;-"5B &=R 45 < 4E !
x <"8<9 < 5 4<B =& =5 4H5 45 ;5-;=5 /6& 4 *M3,' !
/64-?45 :;-D5 6595 <=& "7<C-89 -7 :5C59& H 7X5 -"S <"8<9
A5&C5B =&I<J5 4 -4<C5 95:-=C5B -" 45 5L5A8 &-"E'E<"B
45 -89 -J5 <AW8&5:A&">&"& -;=5<:5 459!O 5"
<B?& 5B &" -459 ;95:5"A5" 45 <BB95::5B 459V7-9?<=
& 4 <" 5=<J-9< 5 <9>8?5" 5 :<&B! <: J57-95! 4<
45 B5< 4 -7 45 %855" -7 A-7Y 6-8=B 45 ?-95 B<">59-8:
- =&I<J5 4 4<" 459 =&75 4< &7 :45 6<:: ;<95B! "- 4&:
6" ?<: 59 -"= /!/J8 5C59 -C595&>" &" 49&: 5"B-?
-8=B J5A-?5 J-8"B 7-9 =&I<J5 4@: :5A89& " 64&=5
J=--B 95?5B&5: 6595 ?-95 -7 5" 45 J5>&" "&">7795:4
<=<?& &5: 4<" 45 5"B -7 4-:5 64&A4 45 6595 ?5<"

E @ <9 =5: ">=- :j :< : -"5 -7 <"C&59*M3,' !& 'C-='&C
45 ;<9 ! @ -" A5: 5A-8: 8?5 -9B&S K 45 R">7 9<"A5 - 4<:$
"<&95 B5 "5 "`>-A&59 9&" ;<9 5:A9&; ! 5<8"587 <"B 5=&aC95! 5`*1$.1
?<&: :58=5?5" B-""59 ;<9-=5:! =5:S 7 $*('R'B
W85=5: &=: 95C-AW85" B58L 45895: K 5=&aC95 - 98=<9 ! 5A .2$
<;9a: @<)L! 'B*+ =) O!a *2 -" = $! C-='&C

T # '

- A895 - <J: <&" 79- ? J=--B:45B 45 ?J<::<B-9
:<&B 6<: 45 7&9: A-"B& &-" -7 < ;9-:;59-8: 95&>"! <"B
J&: ?<: 59 A-8=B "- J5=&5C5 4< :45 6-8=B A-" 9<B&A
45 ?<L&?: 64&A4 4<B 4& 459 - >8&B5B 459 A-"B8A 7
:45 6<: B5 59?&"5B - ;59:5C5&K5! 4-65C59! 45 6<:
-J=&>5B - 5== 459 4< 45 &">A-8=B "- 95><9B 7&5
%855" -7 A- : <:7<&9= <?5"<J=5 - ">=&:4 =<6:! <"B
"- -"= 6-8=B 45 95:5" 45 5L5A8 &-"! -" 45 A-??-"
>9-8"B 64&A4 45 :4<95B 6& 4 4&: J9- 459 9&"A5:! J8
6-8=B 4<C5 - =--D -" & <: < :;5A&< <7&9-" - 4&?:5=7
(5=&aC95!:<&B 45 %855"!K645" 45 4<B 5"B5B!
B-5: 45 &"> -89 ?<: 59 J&B -8 8: 45:5 6-9B:
- ?5i
'5: (<B<?! 45 <":6595B & &: 4&: 5L;95:: A-?S
?<"B
6- 4-89: A-"C59:< &-" 7-==-65B! 6& 4 "- ;-:& &C5
95:8= 45 :<&B :45 6-8=B :5"B :-?5 -"5 - <9&: -
:;5<D - 45 &"> 45 :4565B :&>": -7 >95< &995:-S
=8 &-"! <"B 6<: 8" 6&==&"> - =5 5=&aC95 =5<C5 459 45
B5 <&"5B! 4&? -" C<9&-8: ;95 5L :! <"B -"= <7 59 < 655D
<==-65B 4&? < =<: - >-! <D&"> 6& 4 4&? < =5 59 -7
A-?;=<&" <"B 95?-": 9<"A5 - 45 &">! &" 64&A4 :45
:<&B :45 6-8=B "- J5 79&>4 5"5B 6& 4 ?5"<A5:! <"B 4<
- 495< 5" 459 6<: 45 95<B&5: 6< - ?<D5 45 5L5A8S
&-" A59 <&" 5

45 :5A-"B B< <7 59 5=&aC95: B5;<9 895 9< <"B
(5=C&==5 6595 <B?& 5B <=:-! 9< : <BC&A5$ - :-;
45? -" 45 9-<B "- 4<C&"> J55" <A 5B 8;-" (5=C&==5
4<B >9-6" -=B &" (<9 8<9 : :59C&A5 5 < <" @< 5
6<: 985 - 459! <"B 4<B A-?5 - -"B-" 6& 4 <;89;-:5
<: 4-"5: <: 9< : 6<: 7<=:5 <"B 95<A459-8: 45
:<&B! =&D5 5=&aC95! 4< 45 4<B A-?5 - &" 59A5B5 7-9

K BB95:: -7 (5=& C95! 5A -=->9<;4 <" *+! *M3, _ =44D
. ,$ <"! 2 _ ! & C-= &C '(3
K =&I<J5 4 - 45 &">-7 9<"A5!

45' %855"' -7' A- :@ =&75' =&I<J5 4'<:D5B'/64<' :5A89& '
45 ' A-8=B' >&C5' 459@ 7-9@ 45' %855"' -7' A- :@ 78 895' J5S
4<C&-89' 45 ' <": 6595B' 4<' 45' &">' <"B' 45' A- A4' *M3,
"-J&=& ' 6-8=B' J5' :5A89& &5:' 7-9@ 459!' <"B' 4<' &7' :45' 6<:' :'//'&O
;=<A5B' &"' 459' :-"@:' 4<"B:!' 45' 6-8=B' 8"B59 <D5' 7-9@ 459@
:<75' D55;&">

@ 4< !@ :<&B' =&I<J5 4'<J98; = !'@ 6-8=B' J5' -' <9?' ? '
@5"5? ' 6& 4' B-8J=5' ;-659!' <"B' ?<D5' 4&?' 45' : 9-">59@
@ -' B-' ?5' 489 @

45' ?J<::<B-9:' : <9 &">' <' 45' 6-9B' 5"5? !' :45'
A-=-895B!' <"B' :<&B' :45!B&B' "-' ?5<"' 4<' 45' &">' -7'
A- =<"B' 6<:' 459@ 5"5? ' ' 6<:' <' ?-B5' -7' :;55A4'
7' 45 ' A-8=B' :8>>5: ' <" ' ?5<":' J ' 64&A4' 459@ -6"' =&75'
A-8=B' J5' ?<B5' :5A895' 6& 4-8 ' 45' 5L5A8 &-"!' :45' 6-8=B'
J5' C59 ' 65=-' ;=5<:5B

(5=C&==5' :;-D5' <' =5"> 4!' J8 ' C<>85= '' <"B' D"-6&">'
4<' <?5:' 6<:' <' 45<9 ' -"= ' <"L&-8:' 7-9@ 4&:' -6"' &"S
595: :!' =&I<J5 4' :8>>5: 5B' ?<=&A&-8:= !' 4<' &7' :45'
;<&B-"5B' 4&:' ?- 459!' 45' :4-8=B' 95"-8"A5' 4&:' -6"' ;95S
5":&-":' &"' 45' 5C5" ' -7' <" ' 78 895' A-": ;&9<A ' 7' 45'
-8=B' B-' 4&:' 45' -9B:' <"B' -???-":' ?&>4' ;594<;:'
J5' :< &:7&5B!' <"B' ?&>4' <==-6' 459@ -' =&C5 H

5& 459@ A- =<"B' "-9@ <?5:' 6595' ;95;<95B' -' :<A9&7&A5'
4<' 45 ' 4<B' :5 ' 45&9@ 45<9 :' -"' 6& 4' :-' ?8A4' ;<::&-"'
45' %855"' -=B' !' 45' ?J<::<B-9:' 4<' 45&9@ 95W85:'
-8=B' "-' - 4596&:5' J5' >9<" 5B' 45 ' ?<B5' <7-9?<=
;9- 5:' <"B' 6& 4B956

45' %855"' 4<B' ;9-?&:5B' 4<' :45' 6-8=B' "-' <==-6'
J59:5=7' -' J5' ?-C5B' J ' 45' 95?-": 9<"A5:' -7' : 9<">59:!'
H"B' :45' 4<B' :-' 7<9@ D5;' 459@ 6-9B" J8 ' "5& 459@ 45' B&:$

6 B' " ' [& '5? %& ' 3 " ' [& 3 ' 5? 3 $$ ' % .' !& $$&*'
& &*'$ 3&3% $' ' & ' '5$&*%'C ' $(*$' '%&3 3 $' ' * 3 $'5'
'' !$F 35' ' .'%& ¯$&33 '5? 3 $$' % ' [&¯. " (<) . ' B*+' = ')'
3' %.' C ¯' *' .5(*3' % .!$a' C ' O!88 *2' & '(& '*(
%3' %&3D $. ' %&3 $' .' (*' 5' .

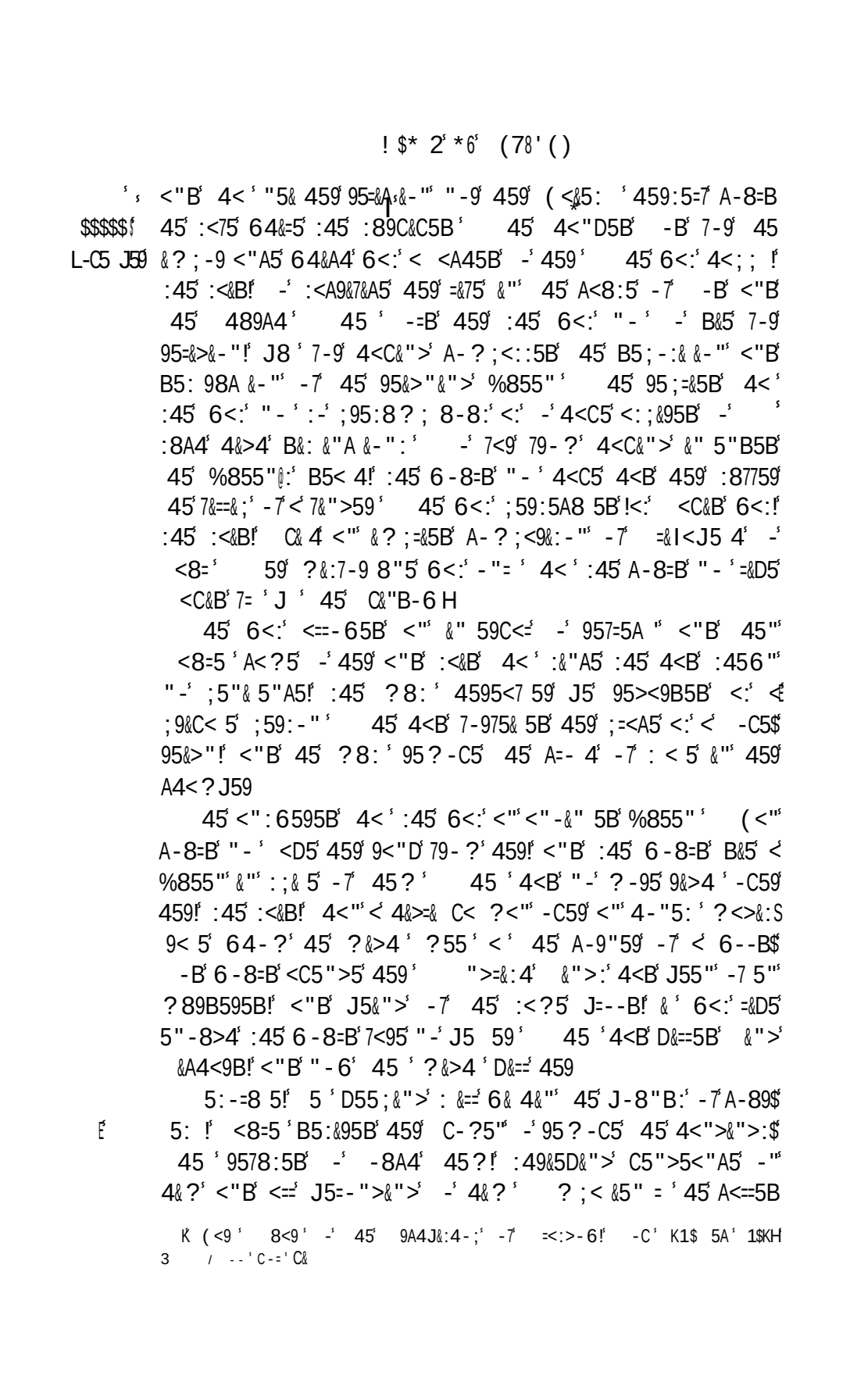
?&::<- 7 5=&HC955 <"B 455 A- :! "-9 455 < & 8B55 -7 <9=&<?5" ! "-9 455 755=&">6 4&A4 4<B J55"" B&:;=< 5B:-

*M3, <"8<9 :&>"<== &""5C59 ;<9 -7 ">=<"B! 4<B ;59:8<B5B 4-:5 64- J5=&5C5B 4< 45 6595 J54&"B 455 :A5"5: 4< 455 %855"" -7 A- : 6<: &"" 95<- B<">59 455 -;&"&-"" &"" A- =<"B 6<: 4< 459;<9B-"" 6<: - J5;<9 -7 455 A-"S B& &-": -7 <;5<A55 6& 4 ;<&" "" 455 95"A4 5?J<:: 4595 6<:<"" 5L;5A < &-"" 4< :455 6-8=B J5::;<95B <=5<: &=- 455 "5L -775"A5 (98=<9 @: :5A95 <9 ! 64- 4<B J55"" &"" -"B-"" 6& 4 5=&75C95 <"B 95 89"5B - <9&: J57-95H4&?! J9-8>4 6-9B 4< 455 &">@: &" 59A5::&-"" 4<B 95<== ;95C<&=5B 455 %855"" -7 A- : 6<: - J5 J9-8>4 - 455 -659! 64595 :455 6<: - J5 D5;<: <<9?5=& 5 "8"! 6<& 5B -"" J 6- 6-?5"! <"B "5C59 :55"" J8 4&@-8>4 <>9<&">5A&- 4&?:5=7! <AA-9B&"> -(5"B-I<! 69- 5 :-?5 4&"> -7 455 :<?5 D&4B - &9 B6<9B <77-9B @ C&= J5<: 4<C5 <=6< : -=B -89 @ (<R5: !@ :<&B (5"B-I<! &"" 95;-9 &"> 455 6-9B: - 4&=&; @ 455 %855"" -7 ">=<"B C&:45: - D55; 459 @ <=&C5! <"B 455 95"A4 &"><"B 4&: ?- 459 6&:4 459 - @ J5 45=B <A=-:5;9&:-"59 @H

H1*M32 &("# $ - (<9 8<9 459:5=7 455 B--9 -7 5:A<;5 6<: : &== 45=B -;5" 57-95 455 ;8J=&A< &-"" -7 455 :5" 5"A5 -9B 8AD489: <"B 5A95 <9 5<=5 6595 :5" - 459&"E >< 6& 4 <A-; -7 & 45 6595 B&95A 5B - 5P 459 4< 455 -89 4<B 95$5L<?&"5B 459 :5" 5"A5! <"B 4<B A-"C&"A5B 45?:5=C5:! 4< "- 6& 4: <"B&">459 B5"&=V :455 6<: : &== 95<== >8&= 45&9 C59B&A 4<B J55"" A-"S 7&9?5B J <9=&<?5" ! 455 %855"" 6<: 89>5B @ J ?<"j @ : 9-"> <"B &"C&"A&J=5 <9>8?5" : - ;9-A55B - 45&K @ 5L5A8 &-"! <: 455 :55B$;=- ! A4&57 ?- &C5! <"B <8 4-9 @ -7 <P 455 =< 5 A-": ;&9<A&5:'@ <"B 6<: -=B 4< &7 :455 B&B "- &5=B @ :455 6-8=B J5>8&= J- 4 J57-95 -B <"B

45 64-=5 6-9=B! -7 <=5 45 ?&:59&5:< "B A<=<?& &5:4<
?&>4 A-?5 -"459 9578:<= J5& !45957-95! :45 $$$$$
D"56"- 5 4-6& :4-8=B ;=5<:5 -B -&"A=&"5 459 -C5?JB9
45<9 &"4< J54<=7 5 :45 4-8>4 & ?55 &"A-"$
:A&5"A5 4< 45 %855"-7 A- : :4-8=B J5 7-956<9"5B!
4< :45 ?&>4 J5 4&"D 459:5=7 -7 459 :&": <"B -& 5"A5:!
J- 4 - -B <"B -6<9B:459:5=7! <"B ;9< 7-9>9<A5 -
J5$ 98= ;5"& 5" 7-9 45 :<?5 <B 45 7<8= 95<A45B
"-789 459 4<"459 -6"; 59:-"! =&I<J5 4 ;9- 5: 5B
J57-95 -B 4< :45 6-8=B 4<C5 7955= ;<9B-"5B& H
45"< :5" 5"A5 -7 B5< 4 &: A-??8"&A< 5B! -4-=B
-8 <4-;5 4< & 6&== "- J5 5L5A8 5B &: 8:8<== 5W8&S
C<=5" -< ;9-?&:5! <"B "-?5::<>5 A-8=B 4<C5 A-"C5 5B
"&-95 ;=<&"= 4< (<9 8<9 4<B J8 -A-"75::<"B
5L;95::95>95 ! <"B 4< 459 =<: 7<8= !=&D5 45 =-">A< <S
=->85 64&A4 4<B ;95A5B5B& ! 6-8=B J5 7-9>- 5" (<9
8<9 ! 4-65C59! :4<95B ;9-J<J= &"45 >5"59<= J5=&57H
4< =&I<J5 4 B<95B "- 5L5A8 5 459! <"B :<6 -"= &"
459 5C&B5" 45:& < &-"< A-6<9B&A5 -"64&A4 :45 ?&-7=&
<75= ;95:8?5" 64&=5 45 :5" 5"A5 6<: < 75< 895 &"
&:5=7! 64&A4 :45 A-8=B ?<D5 8:5 -7 - : &9 45 6-9=B
&" 459 J54<=7 45 6<: 5" 95< 5B "- - B5A5&C5 459S
:5=7 45 6<: -=B 4< &7 :45 9578:5B - J5>0k ;<9B-"
459 =&75 6-8=B J5 95<== &"B<">59 &59A5= <"B: 59&
:45 B<95B 45 -C59"?5" - B- 45&9 6-9: 8;-"459
<C&">A-"B5?"5B 459 - B5< 4! 45 ?&>4 A-?;=5 5
45&9 6&AD5B 6-9D! :45 :<&B! <"B -B 6-8=B 95A-?$
5":5 459 &"<9<B&:5
"45 6<9 -7 6-9B: 64&A4 7-==-65B 459 D55"-">85
59C5B 459 65== -9B 8AD489: :<&B 4< :45 4<B
<8>4 45 <4-=&A: - 95><9B 459 <: 45&9 -C595&-$"!

K ": 98A&-": - -9B 8AD489:) ! / + '
(9 5<=5 :5" - 45 %855"-7 O 5A95 &" 5==&>5"A5! A F&$ -C
A-: ' K $ ' ('



&"' 4&:' -6"' :59C<" :!' 64-' -95' 45?' HH-=5" = ' B-6"' 5
J<B5' 45?' <D5' <6< ' 459' J&==&<9B' <J=5!' :<RB">' : 59"= ' $$$$$
4< ' :45' 4<B' "-6' "-' =5&:8&&5' 7-9' <?8:5?5" :!' <"B' 7-9' 45' 8-C5?JB9
7&9:' &?5' 45' A-C5&E5B' 4&:' 45<B' <"B' :5< 5B' 4&?:5=7' &"' 459'
;95:5"A5 H

59' &">5"8& ' 6<:' "5C59' <' 7<8= ' <8=5 ' 4<B' -=B'
459' :45' 6<:' <' 9<& 95:: ' 4595' 45' <9?:' -7' A- =<"B'
4<B' 48">' :45' :8:;5"B5B' <' A98A&7&L' 7-9' <":659!' <"B'
;-&" 5B' -' & ' 645"' "5L ' 45' 5" 595B ' 4-8>4' :45'
4-8>4 ' 459' 5L5A8 &-"' 8"=&D5= !' :45' ?8:' 4<C5' 75=' 4< '
& ' 6<:' "-' &?;-::&J=5!' <"B' :45' 6<:' B5 59?&"5B' 4< ' &7'
B&5 :45' ?8:!' :45' 6-8=B' >&C5' 459' B5< 4' 45' A4<&E<A 59' -7'
< ?<9 9B-?' ' 6<:' 985' 4< '& ' 6<:' -"' <AA-8" ' -7' 459'
A955B' 4< ' 45' ">=&:4' 9- 5: <" :' &":&: 5B' :-' 7&59A5= '
-"' 459' ;8"&:4?5" ' 45' A=<&?5B' 45' J5"57& ' -7' 45&9'
<"&?-:& !' ;<9 = ' & ' ?< ' J5' -' &?;9-C5' 459' ;9-:;5A :' &"'
45' - 459' 6-9=B!' ;<9 = ' <=:-' 4< ' &"' :55?&">' -' B&5' 7-9'
5=&>&-"!' :45' ?&>4 ' &"7=&A ' < ?-LE <= 6-8"B' -"' 45' 95S
;8 < &-"' -7' =&I<J5 4!' <"B' 7-9A5' 45' < 4-=&A' -659:' < '
=<: ' 7-9' C59 ' :4<?5' -' 95C5">5' 459 ' 45' 4<B' 4&" 5B' -'
45' -?? &::&-"59:' 4< ' :45' ?&>4 ' J5' A-"C59 5B ' 9-?'
4&:' ?-?5" ' <==' 459' 577-9 :' 6595' B&95A 5B' -' ?<D&">' 459'
-?<"&:?' <:' A-":;&A8-8:' <:' ;-::&J=5!' <"B' -' 5"7-9A&">'
P;-"' 5C59 ' -"5' 4< ' :45' 6<:' -' B&5' &"' 45' A<8:5' -7' 45'
7<& 4 ' 4595' 6<:' "-' >=-9 ' &"' J5&">' 5L5A8 5B' 7-9' <"'
< 5?; ' -' ?89B59 ' &">' 48:!' 45' 6-9=B' A-8=B' J8 '
< ' 4< ' & ' 6<:' <' :5C595' 5L;&< &-"' -7' < 95<=A9&?5 ' :'
P ?<9 9' :45' ?&>4 !' =&D5' <?:-"!' &"C-=C5' 459' 5"5?&5:'
"' 459' 98&"!' <"B' ;89A4<:5' ;<9B-"' 7-9' 459' =<: ' 7<=:54--B'
4 ' >&C&">' C&A -9 ' -' 45' 489A4

59' <=?-"59' 4<B' J55"' :5;<9< 5B' 79-?' 459' :&"A5' 459'
<995 ' < ' 4<9 =5 ' <8=5 ' -77595B' 459' 45' <::&: <"A5'
-7' <"' ">=&A<"' B&C&"5!' 64&A4' -7' A-89:5' :45' B&:B<&"78==

K ("9 ' 8<9 ' -' 45' 9A4J&:4-;' -7' =<:>-6!' -C ' 0.1 5A ' 1$ _'
3 / - ' C-=' C&

, B5A=&"5B 79<&B$ -7 J5&"-H ?<B5 <6< 6& 4 :5A95 = !
@$$$$$:45 69- 5 - =&I<J5 4! 4<"D&"> -B 4< 459 5B&-8:
5465?J59 ;&=>9&?<>5 6<:"-6 -5"B! 95W85: &"> 4< 459 5L5A8S
&-" ?&>4 J5 ;8J=&A! 4< 459 :59C<" :<"B 45 - 459
:;5A < -9: ?&>4 5: &7 4< :45 B&5B < < 4-=&A! <"B
J5>>&"> 789 459! 4< :&"A5 &" ">=<"B 4-:5 < 4-S
=&A 9& 5: 6& 4 64&A4 45&9 A-??-" <"A5: -9: 4<B J55"
J89&5B 6595 "- =-">59 < <&"<J=5! 459 J-B ?&>4 J5
A<99&5B - 9<"A5 64595 :45 ?&>4 =&5 J5:&B5 45 %855"
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-7 7<9565==! 6-9B5B 6& 4 45 B5=&A< 5 ;< 4-: -7 64&A4
:45 6<: <: >95< < ? &: 95::<: -7 :<9A<:?! 98: &"> 4<
459 :59C<" : 6-8=B 7&"B ?5<": 645" :45 6<: >-"5 -
A-"C5 45? - 45&9 B5: &"<&-" - (5"B-I< :45
69- 5! J&BB&"> 4&? 5== 4&=&; :45 6<: B &"> &" 45 >--B
A<8:5 - 8&:5! 4< 45 -8:5 -7 -99<&"5 4<B <=6< :
J55" 95<B 6& 4 & : J=--B &" 45 489A4@: W8<995=! 4<
:45 6<: "-6 A<==5B -" - :45B 459:! <"B 4< & :4-8=B
"- J5 :<&B -7 459 4< !:45 6<: B5>5"59< 5 45 6<:
45 7&9: -7 459 9<A5! :45 :<&B! - B&5 J 45 4<"B -7 <"
5L5A8 &-"59! J8 - J5R8B>5B <"B A-"B5?"5B J 4595 &A:
@ 6<: - J;<AA5; 5B &" 45<C5"! <"B :45 B5:&95B 4&? -
95?5?J59 459 :59C<" :! <"B - :55 ;9< 59: :<&B 7-9 45
95;-:5! -7 45 :-8= -7 4&: ;--9 A-8:&" H
- 45 -;5_ 64-! <: :45 D"56 79-? < 85!
4<B B-8J 5B 459 :&"A59& _ :45 69- 5 5=<J-9< 5= <"B
:-=5?"= ! B5A=<9&"> 459:5=7 < 985 A4&=B -7 -= 489A4K
45 4<B 9578:5B! :45 -=B 4&?! 45 ?&"&: 9< &-": -7
4595 &A: :45 &" 5"B5B! &7 459 <=?-"59 6<: 95: -95B -
459! - ;95;<95 7-9 B5< 4 R" 45 8:8= 6< J A-"75:S
:&-"! ;5"<"A5! <"B A-??8"&-" J8 ! <: & 6<: ;-::&J=5

K (<9 8<9 - =&I<J5 4! -C K (<9 8<9 - 8&:5! -C K /
.F$ 5A 1 # $ " C-=! C& 5A h_ # $ " C-= C&

4<' 45' ?&>4' J5' 7-9J&BB5"' -' 4<C5' <AA5::' -' 459!' :45
48?J=' J5:-8>4' 4&:' -=&"5::' 4<' 459' >5"59<=' ;5"&K' $$$$$
5"A5' ?&>4' J5' <AA5; 5B!' <"B' 4<' 45' C-8=B' 4&?:5=7' 5A?&JEC
>9<"' 459' 4&:' -6"' <J:-=8&-"' ! 45' 6<:' A-?&">!' =&D5'
45' ;9-B&><=!' -' 49&:!' <"B' -7759&">' 459' J=--B' <' 45'
7--' -7' 45' A9-::' 45' A-??5"B5B' 459' :-"' -' 4&:' A<95!'
-' J5' 95A-C595B' &7';-::&J=5' 79-?' ;59B&&-"' 7' 459' :-"'
A-"R&"85B' -JB89<5!' :45' J5W85<45B' 459' 9&>4' <"B' &"S
595:'&"' 45' ">=&:4' A9-6"' -' 45' &">' -7' ;<&"H
"' ;-&"' -7'7-9?' <"B' >9<A5' (<9' 8<9' 4<B' 45' <BS
C<" <>5' -7' 459' 9&C<=' 5C59 64595' =&I<J5 4!' 6&4' <'
>5"59<=' B5:&95' -' B-' 9&>4!' A-8=B' A-"B5:A5"B' -' ;--9<"B'
bt5<"' ?<"I8C95:!' (<9' 8<9' A<99&5B' 459:5=7'&"' 45'
"&B:' -7' 459' A9&?5:' 6&4' <' ?<R5:' 64&A4' 6-8=B' 4<C5'
J5A-?5' 45' "-J=5:' -7':-C595&>":
45'B&77&A8=' '&"' ?<D&">'8;' 459' ?&"B' 64&A4' =&I<J5 4'
5L;59&5"A5B!' 5C5"' &"' 9&7=5:!' J5A<?5' <J:-=8 5' &?;-::&S
J&=&' '&"' <' ?<' 59' -7' :-' 95?5"B-8:' &?;-9 <"A5!' <"B' &'
:55?:' <:' &7':45' 6<:' =--D&">' <J-8'7-9' <BB&&-"<=' ?-&C5:'
-' <::&:' 459' 95:-=8&-"' ' <"B' -!' 9&B' 459:5=7'&"' :-?5' 6<'
-9' -459' -7' 45' &?;-98"&' -7' 9<"A5' <=:&">4<?'
sC<:' <J:5"' 79-?' 45' -89' "' 45' A89&-8:' A-" 9<B&AS
-9&"5::' -7' 459' 5?;59<?5"!' :5' 4<B' ;594<;:' 95:5" 5B'
H;-"' 4&?' 45' A-?;=5 5"5:' 6&4' 64&A4' 45' 4<B' 8"S
9<C5==5B' 4a' A-":;&9<A!' <"B' 7-9A5B' 459' &" -' 45' B&=5??<
&"' 64&A4' :45' 7-8"B' 459:5=7' <=:&">4<?!' &' 4<:' J55"'
<45<B' ?5" &-"5B!' 4<B' ?<B5' 4&?:5=7' :5A89&' 7-9' 45'
B5J:' -7' &9' 4&=&;' &B"5' 45';-659' -7' <-9"5'
#4&A4' &B"5' 4<B' =57' 7-9' 45' :<=5' -7';<9' -7' 4&:' 5:<5:'
C<:' 7-8"B!' <7 59' 4&:' B5<4!' -' J5' &"7-9?<=" <"B' 45' 6o=!
/EC4&A4' 45' 4<B' ?<B5' -"' 457<&4' -7&'7-9' 45';<?5"' -7'
J&:' A95B&-9:!' A-8=B' "-' J5' 5L5A8 5B' 45' 5:<5:' 6595

G

*M32
5A5 ? J59

&5B 8 ; ! <"B 45 A95B& -9: A<?5 8 ; -" <=:&">4<?! 64- 6<: A-":5W85" = 98&"5B H

45 B5J : 45?:5=C5: 4<B J55" &"A8995B &" 45 :59S C&A5 -7 45 %855" <=:&">4<?' 4<B ;9-J<J= :<C5B =&I<J5 4 79-?'/<::<::&"< &-"! <"B ">=<"B 79-?' &"C<S :&-" 'E 45 5: < 5: -7 45 A-":;&9< -9:! <"B -7 ?-95 4<" -"5 8"=&A5":5B 9578>55! 4<B 7<==5" J < <&"B59 -' 45 9-6" 45 <9=' -7 98"B5=' 4<B J55" R7&"5B 4&9 4-8:<"B ;-8"B:" 45 95" :' -7 45 C<: 5: < 5: -7 45 <A95:! 45 5C&==5:! <"B 45 59A&5: 6595 ;<&B &" -' 45 95<:89 ? &>4 4<C5 455" 4-8>4 95<:-"<J=5! 4< -8 -7 45:5 95:-89A5:! &7 &" "-' - 459 6< ! :-?5 <::&:S <"A5 ?&>4 4<C5 J55" >&C5" -' < ?&"&: 59 64-' 4<B B5:59C5B :-' 65=' -7 4&: -C595&>" <"B 4&: A-8" 9 $ 89>4=5 8"B59 --D 45 <BC-A<A -7 45 A<!8:5' 5 95;95:5" 5B -' =&I<J5 4 4< :45 -65B 459 =&75 -' <=$:&">4<?@: A<95! <"B 4< Q& 6-8=B J5 < >95< B&:4-"-89@ -' 459 &7 :45 <==-65B 4&?' -' J5 A98:45B@ 45 =&:$ 5"5B! :55?&">= 7<C-89<J=5 J8 :=-6' -' 95:-=C5@ 5&A5: 59! 4-65C59! 7-9 :-?5 8"D"-6" 95<:-"! 9<&:5B -JR5A &-":!H <"B 459 "< 89<=' 5"B5"A&5:! 95&"7-9A5B :-' ;-65978== ! A<99&5B 45 B< & 459 :45 ;8 -77 45 <; ;=&A< &-" 6& 4 :-?5 5C<:&-"! -9 :45 95 89"5B <;-:& &C5 9578:<= <J&"> -"@: 5: < 5: 6595 >&C5"! <: 89>4=5 "-&A5: &" 4&: B&<9 ! -' &9 <= 59 <=5&>4 <"BH <=$:&">4<?! &" &"B&>"<" B&:>8: ! 95 &95B -' 4&: 4-8:5 < <9"5=?:

Q 48?J= J5:55A4 -89 =-9B:4&;' -' ;<9B-" ?5!@ 45 69-5 -' 89>4=5 ! Q 4< B&B "- <D5 ? =5<C5 -7 Q -8 J57-95 ? B5;<9 895 59 (<R5: @: 8"D&"B B5<=$ Q&"> -6<9B: ?5 4<: :-' 6-8"B5B ?5! <: A-8=B <D5

K <=:&">4<?' -' 5&A5: 59! -C! M _ %& ; ' C-=' &&&' &: :59&5: M!*M32 _ (<' =&I<J5 4! C-=' K <C&:-" -' <=:&">4<?! 5A$ &&! <=:&">4<?' -' 5&A5: 59! -C' *+$.+ _ ' $ %

4-' A-?7-9' -': <' 4595' <"B' 5 !' &7' ':<6'<" '4-;5
4<' ? ' A-" &"8<"A5' 4595' ?&>4' 5& 459' J955B' <" ' $$$$$
>--B"5::' -' 45' 489A4!' -9' 789 459<"A5' -' 45' :59C&A5' ;5A?J59
-7'459' (<R5: '-9' 45'95<=?!' 45'95><9B' -7' ? ';<9 &$
A8=<9':4-8=B' "-'A<8:5' ?5' -'6& 4B9&7sC?:5=7' 8'
:55&">' 45'B5A=&"&">': <5'65'<95'<99&C&">'&&& -!'<"B' 4<'
?5"' -7' J5:' B5:59'<95'=5<:'5: 55?5B!' 4-=B' 45?'
4<;;&5:'&"' 4&:'>-C59"?5" ' 4<'?<'J5'9<459'=--D59:'
-"' 4<"'<A-9:' '48?J=!' 45957-95!' B-'J5:55A4H -89'
-9B:4&;' 4<!'<:' 'B-'<AD"-6=5B>5' ? :5=7'&"7&"& 5='
J-8"B'8" -' -87-9' -89'?-:'4-"-89<J=5'<"B'79&5"B='
789 459<"A5' &5=B5B'8" -'?5' &"' ? ':8&!'64&A4' ' C&=
"5C59'7-9>5!':-' -8'6&=' J5';=5<:5B' -'&"A95<:5' ? '
J-"B' -6<9B:' -8'J '7-9J5<9&">'<" '789 459' -';95::'
459' (<R5: '&"' 45':<?5!64&A4' '<?'95:-=C5B'78== ' -'
>&C5'-C59!' 'B-'<::895' -89' -&EB:4&;!'64<:-5C59'A-"$
A5&'459' (<R5: '?<D5 4'-7'?5!' '6-8=B' "-' :;5"B':-'
=-">' &?5'<:' '4<C5'B-"5'&"' 4<' ';=<A5!':8JR5A' -':-'
&"7&"& 5' -&=<"B'B&:A-?7-9!' "-' -' J5' ?<B5' 8D5' -7'
<"A<:59' ('4-;5'&:!'4-65C59' '<?'B5<='6& 4<=
KJ'<"'5<9 4='9&"A5!' ':4<=="5C59'=<AD' 45'A-?7-9'-7'
45' 9&"A5'-7' 9&"A5:!' -'64-:5';9;5A&-"' 'A-??&'
-89' -9B:4&;' (-:'48?J='<D&">'?'=5<C5!
(' <9"5=?:!' 45'&< 4'-7' 5A5?J59!' c <
(-89' -9B:4&;@:' -'A-??<"B!
:'7' & ' * ; <

- <= !'<"B' ;594<;:' 89>4=5 @:'5" 95<&5:!'&"'<756'
"H55D:' -C59A<?5' <=:&">4<?@:'R8:' &99& <&-"' 45'
%855"' "5C59'A<?5' -'4&:'45=;' 5'6<:' --' ;895' -'
&?& <5'-459':59C<" :'-7' 45' <5!'64-'?8=&;=&5B'&"S
B57&"& 5=' 45&9' "-?&"<=:<=<9&5:'J' 45'<J8:5'-7'45&9'
&"7=85"A5' 5'B&5B'6-'5<9:'<7 59!':-'G --9' 4<'4&:'J-B'
<:'J89&5B'<' "&>4' -':<C5' 45'A-:'-7'<"' 5L;5":&C5

U) ! $* 2 * 6 (78' ()

78"59<= &5 95 89"5B -4&: 6-9D! 4-65C59 5><C5
#
4&: 8">9<A&-8: ?&: 95:: 7955= 64< 95?<&"5B -4&?
*M3, -7=&75! J89B5"&">459 6& 4 "-?-95 ;5 & &-": 8 :45
<"8<9 6<:;8"&:45B 49-8>4 4&: <J:5"A5 &"J5&"> <==-65B -
5" <">=5 459:5=7&"$<" <J:89B <"B B&:A95B& <J=5 <9 &7&A5
" 45 B< 4< 5=&HC95 =57 -"B-" x <"8<9 &-$
5 ! < -8"> <7&7-9B! J9- 459 - &9 B6<9B 45 ?
J<::<B-9 < <9&:! A<?5 - <=:&">4<? < <9"5=?:!
<"B -=B 4&? 4< 4595 6<: <795:4 A-":;&9<A -" 7-- !
<"B 4< (4<: 5<8"587 6<: < 45 J- -? -7 &
5 4<B J55"! 45 :<&B! < 4<: 5<8"587@: 4-8:5 -" 45
5< 4 -7 5A5?J59! 645" 45 4<B 7-8"B 4&?:& &"> -C59
45 7&95 6& 4 =H5=&HC95 4<: 5<8"587 4<B <D5" 4&?<:&B5
&" -<><==59 ! <"B 4<B <:D5B 4&? 645 459 45 D"56<"
-"5 64-! 7-9 <4&>4 956<9B! 6-8=B D&= 45 %855" 45
-;5 6<: 95<B - ;5":&-" <" -"5 64-A-8=B :8AA55B
&" B-&"> & 6& 4 5" 4-8:<"B A9-6": < 5<9 5:$
9<;;5:! 4<: 5<8"587@: :5A95 <9 ! 4<B :;-D5" -4&?
<7 596<9B: -" 45 :<?5 :8JR5A <"B <77-9B 6&:4&">!
<AA-9B&"> -4&: -6" : -9 ! -=5<9" ?-95! 4<B 95;=&5B
4< 4595 6<:<?<"&" 56>< 5! "<?5B (--B ! 8"B59
<995: 7-9 B5J ! 64-4<B J55" 6& 4 4&: J9- 459 &" 9<"A5!
4< ?&>4 ;594<;: 8"B59 <D5 & 5: 9<;;5: B5:&95B
-:55 45 ?<" 5 <"B <77-9B 4<B >-"5 ->5 459 -
45 ;9&:-"! 64595 (--B 4<B <=D5B 45 ?< 59 -C59
6& 4 45? 45 B5J J5&"> < :?<==-"5! 4595 6-8=B
J5 "-B&77&A8= &" ;L@-A89&"> 4&: 95=5<:5" <"B 45 4<B
;9-;-:5B 5& 459 - ;-&:-" 45 %855"@: :<BB=5! -9 &" 9-S
B8A5 <J<> -7 ;-6B59 8"B59 459 J5B! -9 :-?5 4&">5=:5
5W8<== A4&?59&A<= 5: 9<;;5: 4<B =&: 5"5B <;;9-C$
&">= <"B <77-9B! 4&"D&"> "-6 4< 45 4<B 45<9B
5"-8>4! A<?5 -77 6& 4 4&:&"7-9?<&-" - <=:&">4<?
<77-9B 6<: < "- -9&-8: 95;9-J< 5 <=:&">4<?!
<7 59 < 756 W85: &-":! :<&:7&5B 4&?:5=7 4< 45 $6<:

= &">' 5' :8; ; -:5B' 4<' & ' 6<:' :-?5' 9&AD' -' 5L -9 '
?-"5 ' 79-?' 45' 95"A4' ?J<::<B-9j' <"B' :5" ' 4&?'
<J-8 ' 4&:' J8:&"5:: ' <77-9B!' 95R5A 5B' J ' -"5' 5A95 <9 !'
A<& &5B' 4&:' : -9 ' -' <"- 459' ' <"B' &"' <C&:-"' 45' 7-8"B' <
?-95' < 5" &C5' 45<959' ' &:' "- ' 4D5= ' 4<' <HE&:-"'
<:' B5A5&C5B!' -9' <" ' -7' 45' -8"A&=!' -9' 45' %855"!'
64-?' & ' 6<:' "5A5::<9 ' -' A-":8= ' J57-95' <" ' : 5;' 6<:'
<D5"' ' J8 ' 45' A4<9>5' 6<:' 4-8>4 ' A-"C5"&5" ' 7-9' 45'
?-?5" !' ;594<; :' -' 5?J<99<::' 4<: 5<8"587!' <"B'
;<9<= :5' 4`' 95?-": 9<"A5:' -7' 5"9 ' <"B' < 4<9&"5!'
64&=5' 45' (<9 ' 8<9 E' A9&:&:' A-" &"85B ' 45' 5L<A '
?- &C5' &:' -J:A895' ' J8 ' 4<' 4595' 6<:' <' 9&AD' -7' :-?5'
D&"B' &:' J5 -"B' <=' B-8J

<=:&">4<?!' &"' <' :8J:5W85" ' <; -=-> E -' 4<: 5<8$
J587!' -=B' 4&?' 4<' &7' 45' 4<B' J55"' 4&?:5=7' < ' -89 !' "-'
"- &A5' 6-8=B' 4<C5' J55"' <D5"' -7' 45' : -& H' =&I<J5 4'
R5: 5B' <7 596<9B:' 6& 4' 5: 9<; ; 5:!' < ' 45' &"A-"C5"&5"A5'
-' 64&A4' 45' 4<B' J55"' 5L; -:5B ' 45' :<&B' -' 45' ?S
J<::<B-9' 4<' :45'4<B' J55"' 45' B8; 5' -7' < ; <99' -7' 9->85:'O'
<"B' <:' 45' 9->85:' 6595' "5C59' ; 8"&:45B!' 45 ' ?8: ' 4<C5'
J55"' 45' &": 98?5" :' -7' < ; =- ' -7' 64&A4!' &7' :45' 6<:' "- '
J59:5=7' 45' &": &>< -9!' :45' A-8=B' "- ' 4<C5' :59&-8:= ' B&:S
<; ; 9-C5B

-65C59' 4<' ?&>4 ' J5!' <"' 5L; 95::' 6<:' :5" ' <7 59'
5: 9<; ; 5:!' 64-$4<B' =57 ' -"B-"' 45' :<?5' ?-9"&">' -'
C59 <D5' 5=&aC95 ' 5' 6<:' J9-8>4 ' J<AD' <"B' A-?S
?& 5B' -' 45' -659!' 64&=5' 4<: 5<8"587' 6<:' &"$CB 5B' -

HE' #- <" 'A=a95?5" ' "@5: 95'W8@8"5' 7 79-" 59&5' B5' <77-9B' ; -89' &959' B5' =@<9>5" ' B5' ?- @ _ ' ') '!. +6 ' ' ' (<9:' 8= ' & ' H-=!' &C

K' @ <=:&">4<?' =5' 95R5A <' 7-9 ' =-&">!' 5 ' :& <C&:-"' 58: ' 7<&A ' B5' =85: ?5!' =<' A4-:5' "@58: ' ;<:' ;<:: `5' :& HC<" ' A5' W8@&=' ?5' A-"75::<!' ?@<B$

R-8: <" ' W85' :@&=' 58: ' 5: `' d' =<' A-89!' 5: 9<; ; 5:' "E58: ' ;<:' 5: `' ;9&: @_ ' 2 2 ' 2' ' ' (<9:' *M3, ' , & ' C-=' &C

K' @%8@5=5' <C-&' A->"58' =<' C`9& `' W85' A5' "@5: -&' W8@8"5' <79-" 59&5' B5' B58L' A-W8&": @ _ ' 2 2 ' 2' ' ' (<9:' *F' 5& * ' C-=' &C

< 5"B < -8"A&= < 89>=&=5 @: 4-8:5! <"B 6<: &"7-9?5B
E 4< < <"- 459 A-": ;&9<A 4<B J55"" B&:A-C595B 7-9 45
*M3, <"8<9 ?89B59 -7 45 %855"! &"" $64&A4 45! -9 :-?5 -7 4&: ;5-S
;=5 6595 :8; ; -:5B -J5 &?;=&A< 5B $ <77-9B@: B5; -:&S
&-"" 6<: 95<B -& 4&? 5 6<: &"7-9?5B 789 459 4<
5: 9<; ;5: 4<B J55"" 5L<?&"5B -"" 4&: 95<A4&"> 45
-659! <"B 4<B "- B5"&5B 4< 45 4<B :55"" (--B < <
56>< 5! 64&=5 (--B <><&"" :8; ; -9 5B <77-9B J
:65<9&"> 4< 5: 9<; ;5: 4<B :<&B 45 6&:45B :8A4 <
@ ?<"" A-8=B J5 7-8"B &"" ">=<"B <: 45 64- B&B 45
@ 5L5A8 &-"" 8; -"" 45 9&"A5 -7 9<">5 @
4<: 5<8"587 : 5"5B &"" 45 ?-: ;9-7-8"B <: -"&:4S
?5" 98 4 <"B 7<=:54--B 4<B J55"" :-& ">5"&-8:= &" 59=<A5B 4< 45 D"56 "- 64< -: < -9 "- -: < K
45 95<= 7<A ! <: 45 5L;=<&"5B & <7 596<9B:! 4<B J558
4&: _ <77-9B 4<B &"7-9?5B 5: 9<; ;5: 4< =&595 6<:
< ?<"" &"" 56>< 5 A<==5B (--B 64- 4<B :-?5 4&"> -
5==5 4&?-7 &?;-9 <"A5 -45 %855"" -7 A-: H 4<:S
5<8"587 95A->"&:5B 45 "<?5 <: 4< -7 < ;59:-"" 64-
4<B -"A5 A<99&5B <=5 59 7-9 4&?- 4<9 =5 ! <"B :8;S
;-:&"> & ?&>4 J5 < ?< 59 -7 A-":5W85"A5! :5" 4&:
:5A95 <9 -: ;5<D 6& 4 4&? 45 ? : 59 6<: ?595= 4< ! &7 (4<: 5<8"587 6-8=B ;< 45 B5J 7-9 64&A4
(--B 6<: &?;9&:-"5B (--B :<&B 45 6<: 95<B -D&== 45 %855" 5: 9<; ;5: &": <" = =57 4&?<"B &"E
7-9?5B 4&: ?<: 59 4<: 5<8"587! :8; ; -:&"> < 9<;
4<B J55"=<&B -5?; 4&?! 7-9J<B5 <77-9B 4&:4-8:5V
<"B 495< 5"5B &7 45 A<?5 "5<9 4&?<><&"" -:5"B 4&"<
4<"BA8775B -45 -8"A&=
5 6<: :&=5" 7-9 :-?5 :5A-"B:! J5 655"" :89;9&:5 <"B
&"B&>"< &-" 89>4=5 <:D5B &7 45 6&:45B -:55 <7S
7-9B 7&9: @ 45 6<: :-775"B5B 4< 45 :<&B 45 6-8=B
@ :55 "-"-"5 45 6<: <?J<::<B-9 -< &">! <"B 7-9 45
@ 4-"-89 -7 4&: ?<: 59 6-8=B "- :8J?& -J5 <AA8:5B E

<&"5B 45 ?&: <D5 6<: <AD"-6=5B>5B <756 ?-" 4:
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: 98AD < 45 J<95 :8:;&A&-" 4< 4&: ?J<::<B-9 A-8=B
4<C5 J55"A-"A59"5B&" <A-":;&9<A !H <"B :<&B "-? -95
<J-8 45 %855"E-7 A- : 5: 9<;;5:95?<&"5B&" 45
-659 <7 59 45 >9-8"B=5::"5::-7 45 A4<9>5 4<B'J55"
A-"75::5B! =5: & :4-8=B :55?<:&7 45 4<B J55" <995: 5B
6& 4-8 A<8:5 =&I<J5 4! 645" :45 95=5<:5B 4&?< =<: ! :<&B! =<8>4&">! - 4<: 5<8"587 4< :45 8"B59S
: --B 4&: :5A95 <9 6<: < =<6 59! <"B 4< &7 5C59 :45
4<B < A<8:5 -;=5<B J57-95 45 A-89 :&" <9&:! 45 A-8=B
95C5">5 4&?:5=7 H

<B 45 -8"A&-"= J`5" A-"A59"5B&" 4&: : &@<">5
&"C5" &-"! 45 ;89;-:5 -7 & 6-8=B J5 &" 5==&>&J=5$
45 ?&>4 4<C5 6&:45B -C59A-?5 45 %855"@:&9S
95:-=8&-" J < 795:4 &==8:9<&-" -7 459 &":5A89& $
59 -6" 5C&B5" :4<95 &" 45 B5A5;&-" "5>< &C5: 4&:
&" 59;95 < &-" -7 &! 64&=5! J5 45 ;89;-:5 64< & ?&>4
& 7-9?5B < ;--9 <"B 8"B&>"&7&5B 5;&:-B5 &" 45 9<>5B
&" 64&A4 & 6<:&?J5BB5B! <"B & <9"&:45B < ;9-A55B&">
64&A4 :-7<9 4<B J55" ?-B59< 5 <"B R8: 45 789 -
45 ;5-;=5! <4$5<B :8:;&A&-8:-7 45 95"A4! kJ5A<?O
8">-C59"<J=5! <"B 45 B5?<"B 7-9 45 5L5A8 &-" :-C&-S
=5" <: -J5 <=?-: &995:&: &J=5 5 <><&" & A<" 4<9B=
J5 4-8>4 4< =&I<J5 4 4<B A95< 5B 45 5LA& 5?5"
<: <" 5LA8:5 7-9 &5=B&">! :&"A5 :45 B&B "-H ;9-7& J
& ! <"B 6<: "-? -95 <J=5 -95:-=C5 4<" J57-95 45
6<99<" 4<B J55" B9<6" <7 59 45 ;8J=&A< &-" -7 45
:5" 5"A5 45 4<B 9578:5B -:&>" & ! <"B 45 ;-::&S
J&=& &5: -7 45 :& 8< &-" 6595 <><&" ;<&"78== 95C&565B
5 -"B 45 -JC&-8: -JR5A &-": -=5"&5"A ! 4595 8!&!

@ <B5 - <=:&">J<?! <" F+$ O J<:5<8"587 - J5 &">!
5J N _ =44 '(3 8L $,& * C-= &C

- 459:' = &"> '&"' 45' A-": & 8 &-"' -7' A- A4' <"B' ">=&:4' ;<9 &5:!' 64&A4' & ' 6<:' 5L 95?5= ' B<">59-8:' -' -C59=--D' "' 45' 6-9B:' -7' < 95?<9D<J=5@B-A8?5" 8A4' <:' 6595' 6-9=B= ' <775A 5B' 4<' 4<B' J55"' 8:5B' <:'&": 98?5" :'<:' 65==' &"' 45' =< 5' ;9-A55B&">:' <><&": ' 45' :<&B' %855"' <:'< ' - 459' &?5:!@&7' 45 ' :<6' 459' "-6' :;<95B!' 6-8=B' :55D' -' ?<D5' 45&9' -6"' ;5<A5' -' 459' (<R5: @:' B<">59" 45' J5: ' <775A 5B' 4<' 4<B' 4595 -$ 7 95' :456"' 45?:5=C5:' A<9578=' -7' 459' (<R5: @:' :<75 ! :55&">' 45&9' A<95'77'8: &F< 5!' 6-8=B' >&C5' -C59!' <"B' ;9-$ C&B5'7-9' 45&9' -6"' :<75 ' J ' 95 &9&">' 45?:5=C5:' -8 ' -7' 45' 95<=?' 45' "8?J59' -7' <;&: :!' < 45&: :!' <"B' ?<=$ A-" 5" :!' 6-8=B' ?<9C5==-8:= ' &"A95<:5' &"' 95:;5A ' -7' 45' 4-;5' 4<' 45 ' 6-8=B' A-"A5&C5' 4<' 45' A-A4' %855"' :4-8=B' A-?5' -' 45' 9-6"' <:' < 4&">' 7< <=' 45' 5:8&:' <"B' :5?&"<9&5:' HB' 45&9' A-"75B59< 5:!' 4<' J8&=' -"= ' 45' 4-;5' -7' <= 59< &-"' -7' 95=&>&-"' -"' H459' ;59:-"!' B-8J &"> '&"' 95:;5A ' -7' 45' &"7&9?& ' -7' 459' J-B ' 4<' < ?-95' : 9<&>4 ' D55;&"> '-7' 459' 6-8=B' 4<: 5"' 459' B5< 4!' 6-8=B' 8:5' 45' >95< 59' 5L;5B& &-"' 7-9' 45' ;95C5" &-"' 4595-7&"' ;8 &"> '&"' 5L5A8 &-"' :8A4' ;9<A &A5:' <:' ?&>4 ' :4-9 5"' 459' (<R5: @:' B< :' 45 Kg&8?J59'-7' 4-:5' &"' A- =<"B!' 5C&=' <7=75A 5B' - 95=&>&-"' <"B' 45' <?& ' -7' 45' ">=&:4' 9-6"!' 6-8=B' &"A95<:5 H 4-:5' "-6' 65==' <7= 5A 5B' 7-9' 45&9' -6"' :<75 ' 6-8=B' A4<">5' 45&9' A-89:5 ' 45' &">!' &7' 45' 4<B' "-' A<8:5' -' 75<9' <" ' ">=&:4' ;<9 !' 6-8=B' J5' J9-8>4 ' J ' ;59S :8<:&-"' -7' 45' < 4-=&A' 9&"A5:' -' < 5?;' ' :-?5 4&"> K7-9' 45' =&J59 ' -7' 4&:' ?- 459!' <"B' 45' < 4-=&A:' <J9-<B' k -8B J5' ;9-C-D5B' -' < 5?;' ' :-?5 4&"> J ' 45' &== <775A 5B' &"' ">=<"B @

59&=:' ?&>4 ' <9&:5' 79-?' 45' %855"' -7' A- :@ 5L5S A8 &-"!' J8 ' 45' ;59&=:' 79-?' 45' ;95:59C< &-"' -7' 459' =&75'

F. . ! $* 2 * 6 (78' ()

LLL9C

*M3, <"8<9

6595 &"7&"& 5= > >95< 59 45 6<: <=95<B < < 4-=&A! <"B : - : <J=&:45B &" 45 - ;&"&-": -7 45 < 4-=&A: -7 45 95<=? 45 4<B <=95<B ! J 459 ;9<A &A5: <"B J =-"> A-" &"8<"A5 &" ">=<"B! 6-" < >95< ; <9 4595! 64&A4 "8?J59: 6-8=B &"A95<:5 645" 45 :<6 459 ;95:59C5B 7< <== A-" 9<9 - <== 95<:-" <"B 45 < 4-=&A 9&"A5: 6-8=B R-&" 6& 4 459 :-" &" :55D$ &"> 459 =&J59 ! <"B ;8 &"> 4&?&" ;-::5::&-" -7 45 9-6" 45 B<">59 - 459:5=7 6-8=B A95< 5 "- H&?;5B&?5" ! 7-9 :45 B&B 459:5=7 5"A-89<>5 45?! ;9< $ &"> 45? - 4<C5 "- 95><9B 7-9 459 ;59&= J8 - 45 <BC<"A5?5" - 7 45 A<8:5 "B 45 6-8=B 4-;5 <"B 4- $6& 4-8 A<8:5! 4< 645" 45 6&:5 ?5" -7 ">=<"B :4-8=B :55 459 ;<9 &"A95<:5B 6& 4&" 45 95<=?! <"B < >5"59<= A-?J&"< &-" 6& 4-8 45 95<=? K7-9 459 B5=&C59 ! 45 6-8=B ?<D5 B<&" - <BC&:5 <" C&-=5"A5 <><&": 459 H

" 45 J<AD -7 45 &?<>&"5B A-":;&&<A < 45 95"A4 ?J<::<B-9:! A<?5 "56:79-? -==<"B 4< 8 &==&<? <"=5 4<B A-":8??< 5B 4&: ?5B& < 5B 95<S A459 5C5" 59 6<: J5 9< 5B - 45 ;<"&<9B:! <"B -6=<"B -9D5! 64- 6<: <"=5 : A-"75B59< 5! 4<B >&C5" 8; 45 7-9 : < T8 ;45"! 45 :-4 <9 ;9&I5 -7 5&S A5: 59: <8 8?" A<?;<&>" =95<B &99& < 5B - 4- =<: : 95 A4 -7 5"B89<"A5! 45 ;5-;=5 J5A<?5 5C59 S 64595 B5:;59< 5 9-?<== ;<9 : -7 ">=<"B A<?5 95S ;-9 : -7 < 75C59&:4 5L;5A < &-" -7 A4<">5" < <"j ?-?5" 45 4&" J-"B: 64&A4 45=B :-A&5 ->5 457 ?&>4 J5 B&::-=C5B! <"B A-==&:&-": J5 655" < 4-=&A: <"B 9-5: <" : ;95A&;& < 5 45 =-"> <=D5B -7 A&C&= 6<9

D43 4 3. /4)

6<: "-6 45 &: -7 5J98<9 x" 4 56 =5 $ 45 %855" 6<: : &== < 955"6&A4 -9B -6<9B

H &:A-89:5 -8A4&"> 45 %855" -7 A-:! -" *M3, _ =44 :) 2 + '

-7 77&">4<?!" -' <' <==' 45 ?-:' 5L 95?5 -7 459 <B$
C&:59:! A<?5 -' 459 -' 95;95:5" ' 4<' 45 A-"B& &-"' -7 45 $$$$$
A-8" 9' A-8=B" "-'=-">59 J5 9&7=5B 6& 4 4<' :-?5 ;-:&$ 65"= $
&C5 A-89:5 -9 - 459 ?8:' J5 <D5"' 6& 4' 45 %855"' -7 AJ/&$"
A-:' 5 4&?:5=7! =&D5 5C59' - 459 &" 5==&>5"' : <5:S
?<"' 64-' 6<:" -' < 9<& -9 <' 45<9 !' 4<B =-">' B5A&B5B
4<' :45 -8>4' -' J5 5L5A8 5B' -9 45 7&9:' &?5 =&I<S
J5 4' <;;5<95B 95<==' :4<D5"' 45 =-">' :8:;5":&-"' -7
45 :5" 5"A5 ?<B5 &' B-8J='B&77&A8=' -' 5"7-9A5! J8' :45
B5:&95B -6<9BK -' 5==' <C&:-"! 64-' &"' <=:&">4<?@:'
<J:5"A5 6<:' <A &">' <:' :-=5 :5A95 <9 !' -' A-?5 -' 45LK!
<"B -' J9&">' 45 6<99<"' 6& 4' 4&?' <C&:-"! 64-' 6<:'
6<=D&">'&"' 45 ;<9D! A<?5 4<: &='&"! <"B! <7 59 < 756'
-9B:' 6& 4' -9B -6<9B! 75 A45B 45 6<99<"' 79-?' 4&:'
9--?! ;=<A5B &' ;89;-:5='<?-">' :-?5 - 459 ;<;59:! <"B
--D &' -' 4&:' ?&: 95::' 45 <=D5B -7&"B&77595"' ?< 59:!
95?<9D5B -"' 45 J9&>4 "5::' -7 45 ?-9"&">! <"B 5"S
W8&95B 64<' 45 4<B 6& 4' 4&?'&"' 4&:' 4<"B' 5 :<&B 45
4<B B-A8?5" :' 7-9 459 :&>"< 895!! <"B <?-">' - 459:' -"5
4&A4 -9B -6<9B 4<B -=B 4&?' 4<' :45 4<B :5"' 7-9
45 >=<"A5B -C59 4&:' ;-9 7-4-! :8J:A9&J5B 45 :455 :'
-"5 <7 59 <"- 459! 45 6<& <"' <?-">' 45?! <"B 4956'
&' 6& 4' 45 95:' 8;-"' 45 7=--9' ' :55?5B <:' &7' :45 4<B
?5<"' -' =5' &' ;<::' <:' &7' J' <AA&B5" " J8' &7' 4&:' 6<:'
459 ;89;-:5! :45 A4<">5B 459 ?&"B' 45 :;-D5 ;<9S
&A8=<9= @ -7 & " :45 :<&B :45 4<B B5=< 5B :-' =-">! &"'
-9B59 -' :456' 4-6' 8"6&==&">=' :45 4<B A-":5" 5B! <"B
:45 <:D5B <C&:-"' &7' 45 6<:' "-' :-99' -' :55 :8A4' <
;<;59 :&>"5B' 5 95;=&5B 4<' 45 6<:' :-99' 45 %855"'
-7 A-:' 4<B ?<B5 &' "5A5::<9 ! J8' &' 6<:' J5 59 4<'
45>8&=' :4-8=B :87759 4<"' 45 &""-A5" ' 45 :?&=5B
5"' 49-8>4' :-?5 - 459 J8:&"5::! <"B 45"' J<B5 4&?'
<D5 45 6<99<"' -' 45 4<"A5==-9! >5' & ' :5<=5B <:'
W8&5 ='<:' 45 A-8=B' < &">' "- 4&">' -' <" ' -"5! <"B 45"

:5"B & - 45 ;59:-": - 64-?' & 6<:' <BB95::5B! 64- 6595 - :55 5L5A8 &-"' B-"5 -9 459:5=7 :45 B5:&&@5B - J5 9-8J=5B "-' 789 459 -"' 45 :8J?5A' &== <==' 6<:' -C59' 45 :;5A&7&5B 45 4<== -7 45 A<: =5 <:' < 7& 59 ;=<A5 4<"' 45 A-89 $ <9B -9 45 >955"! <"B 45"' J<B5 4&?' A<== -"' <=:&">4<?! 64-' 4<B 95 89"5B -' :59C&A5! J8' 6<:' = &">' &==' &"' 4&:' -"B-"' 4-8:5! <"B 5= ' 4&?' 64<' :45 4<B B-"5! <BB&">! &9-"&A<== ! 4<' >9&57 6-8=B D&==' 4&?' -8 9&>4

5 6<:' =5<C&">' 45 9--?' 645"' :45EA<==5B 4&?' J<AD' 45"' 4595 6<:' <" 4&">' B&:<>955<J=5 -' J5 B-"5 &' 4<B J55"' 459 A-??-"' ;9<A &A5 -' =5' - 459:' B-' &!' <"B -' :55?' -' J=<?5 45?' <7 596<9B:!' <"B 4595 6595 ?-95 4<"' 45 8:8<= 95<:-":' -"' 45 ;95:5"' -AA<:&-"' 7-9 459 4-8>4 :' -'98"' &"' :-' 5?; &">'<A4<""5=' 45 ?5?J59:' -7 45 <::-A&< &-"' 4<B J-8"B 45?:5=C5:' <:' &"B&C&B8<=:' <J-C5 <"B J5 -"B 45 -9B&"<9' <A &-"' -7 45 =<6' -' ;9-:5A8 5 -' 45 B5< 4 A-":;&9< -9:' <><&":' 45 %855"$ 45&9 -< 4 4<B J55"' :<"A &-"5B 6& 4' &":&>"&7&A<"' ?-B&S 7&A< &-":' J' <9=&<?5" !' <"B 45 A<:5 4<B <9&:5"' 64&A4 6<:' A-" 5?;=< 5B &"' 45 7-9?< &-"' -7 45 <::-A&< &-"$ 45 %855"' -7 A-:' 6<:' 45 ;59:-"' <><&":' 64-"& J-4 45 J-"B <"B 45 A' 64&A4 6<:' ;<::5B 8;-"' &' 6595 &? ?5B&< 5=' B&95A 5B' 45 "< &-"' B5?<"B5B 45 5L5A8 &-"' 7-9 & :' -6"' :<D5 <:' ?8A4 <:' 7-9 45 %855"@:$ -9 459:5=7 :45 4-"5: =' ;9575995B &"A899&">' ;5&@:-"<= 9&:D -' <D&">' 459 D&":6-?<"@:' =&75"' <"B &7 <!=- <= :8JS R5A' 95=&5C5B 459 -7 459 5?J<99<::?5"' &"' 95=&<"A5 8;-"' 45 A' J' D&==&">' 459 4&?:5=7!' &' ?&>4' B&:<9?' 45 95:5" ?5"' -7 9<"A5 <"B A- =<"B! <"B >&C5 <?5:' <"B 7=5"9' <"' 5LA8:5 7-9 9578:&">' -' W8<995= 6& 4 459 H

K -?5 4&"' -7 4&:' D&"B 4<B &-"! 645"' <?5:' <775A 5B 95:5" $;9-4<J=' J55"' >&C5"' -' 459 J' 45 ?5"! -69&5 >&=C&5!'<A-995:;-"B5"' (<: 59 -7 9<' 7 59 45 5L5A8$' -7 <=:&">4<?&:'<' 45 A- A4 -89 H

&9' ? <:' <8=5 ' $6<:' <' ?5?J59' -7' 45' <::-A&< &-"!' <:' 65=='<:' &9' 956' 989 !' 64-' 4<B' 95?<&"5B' <' - 459$ &"><' -' :4<95' 4&:' A4<9>5' 6& 4' 4&?' 4-:5' 6-' =&I<S J5 4' :<&B' ?&>4' 4<C5' ?<B5' 45' 6<99<"' 8""5A5::<9 !' <"B' :45' B5:&95B' <C&:-"' -' :;5<D' -' <=:&">4<?' <J-8' &!' <"B' -' 69& 5' -' 755=' <8=5 @:' <"B' 989 @:' B&:;-:& &-"

<C&:-"' :<&B' &' 6-8=B' J5' =-:' =<J-89' 5' 6<:' A59S <&"' 4<' 45' 6-8=B' 9578:5" 45' :<8 5' &"B55B' 6-8=B' b=-' ;9-5A' 45?' 8"=5::' 45' <A 5B' 6& 4' ;59:-"<= B&95AS &-":' 79-?' 459:5=7

=&I<J5 4!' 4-65C59!' &":&: 5B!' 5==&">' 4&?' 45' 6-9B:' bC4&A4' 45' 6<:' -' 8:5!' <"B' 45' ;9-?&:5B' -' ?<D5' 45' &&L;59&?5"

5' =57' 459' ;95:5"A5!' 755=&">'C59' '8"A-?7-9 <J=5!' A<?5' P;' -' -"B-"!' <"B' 95;-9 5B' 64<' 4<B' ;<::5B' -' <=S :&">4<?" <"B' 45"' 45' 65" ' -"' -' 45' -89' -7' 4<"S A59 !' 64595' 45' 6<99<"' 6<:' :5<=5B' 6& 4-8' J5&">' 95<B!' 45' 4<"A5==-9' 4<C?>' <"' &?;95::&-"' 4<' 45' 6<:' ;<::&">' :-?5' 8"&?;-9 <"' A-??&::&-"' 7-9' 95=<"B H' <=:&">$' 4<&"' ?5<"64&=5' A-?;-:5B' 45' =5 59' -' <8=5' <"B' 989 ' 45' %855"!' 45' :<&B!' "-5B' &"' 45?' <' =<AD' -7' 4<' A<95' <"B' I5<=7-9' 459' :59C&A5' 64&A4' :45' =--D5B' 7-9!' 4<' 45' 4<B' "-' -7' 45?:5=C5:' 7-8"B' ?5<":' -' :4-9 5"' 45' %855"' -7' A- :@ =&75' 45' :55?5B' -' A<95' "5& 459

/ 9-5 48:' -' 9A4&J<=B' -8>=<:' _' Q 7' 45' %855"@:' ?J<::<B-9' J5' 578:5B' <8B&5"A5' <:' 5 !'&7' 45'%855"' ;59:&:' &"' ?<D&">' 5LA8:5:!' <"B' &"' :55D&">' 45' &">'J'<==' ?5<"!' <==' /6&=79<?5' <:' 45'k 6&=4<C5'&' -9' 45' &">' 6-8=B' J5' J8'&":&: 5B' -"' '" 45' ?< 59!' 4<' 4&:' 4-"-89' ?<' J5' :<C5B' &"' -"5' ;-&" ! 7-9' 4595' &:' & -' ;59:8<:&-"' A<"' &"B8A5' 4&?' -' "?49<A57-95&>"'<?& !'J95<D&">'6& 4' ">=<"B!' "- 4: <"B&">' 45' ?-: ;<9' -7' 45' "-J&=&' 4<C5' B5<=' -' 45' A-" 9<9 @_ ' '$*' '5*+78' ' (<9A4' 7' 8'H)' =44'& ' ' ! "' 6M + '

Q' Q (' <$C&:-"' <C-&' 7<&A' :A5P59' =<A-??&::&-"' B5'=@5L5A8&-"' B5' ?-9' d' (' =5' 4<"A5==&59' :-84!' ;95 5 R 5' B@8"5' A-??&:&-"' ;-89' 9=<"B5!' B5' :-9 5' W85' =5B&A' 4<"A5==&59' =@<C-&' :A5=='5' :<":'=@<C-&@'=585@_ N' $ '$!D' (!!6'+' *2' (<9:' 8'H' N & ' C-='&C

7-9 459! "-9 45&9 A-8" 9 ! "-9 45&9 -< 4 45 6595 A<: &"> 45 J89B5" 8;-" 459! D"-6&"> 459 8"6&==&">S "5:: -:45B J=--B! <"B &7 95><9B 7-9 459 :8JR5A :B&B "- ? -C5 459 ?-95 4<" 459 -6" ;59&= :45 6-8=B "5C59 A-":5" H

" <C&:-"@: 95 89" 79-? 45 4<"A5==-9@:! 45 =5 59 6<: :&>"5B J 45 6- :5A95 <9&5:! ?<B5 8; <"B :5" ! -77 &? ?5B&< 5= 45 6595 J-4 8"5<: 45 "5L ?-9"&"> < ?5::5">59 J9-8>4 <C&:-" < "-5 79-? 45 %855" 5==&"> 4&? &7 45 4<B "- J55" <=95<B 6& 4 45 4<"A5==-9 - 7-9J5<9 &== :45 4<B :;-D5" 6& 4 4&? <><&" 5 4<: 5"5B - 459 ;95:5"A5! <"B :<&B 4< 45 6<99<" 6<: <=95<B :5<=5B 45 :55?5B B&:S ;=5<:5B! <"B 45 ;=5<B5B 4< 45 4<B J8 -J5 5B 459 -6" A-??<"B:! <"B 5"W8&95B &7 :45 4<B <= 595B 459 ?&"B

45 :<&B 4< :45 4<B "- ! J8 :45 <><&" A-?;=<&"5B -7 45 J89B5" J5&"> 49-6" 8;-" 459:5=7

5 -=B 459 4< @ 45 4-"-89<J=5 <"B R8: 6< 6<: @ 45 :<75: <"B J5: ! &7 :45 ?5<" & -J5 B-"5 < <P @

45 6<=D5B 8; <"B B-6" 45 9--? &?;< &5" = ! <"B :8BB5"= =57 4&? 5 :<6 5L<A = 64< 6<: ;<::&"> &" 459 4-8>4 : 45 4<B 95=8A <" = ;59A5&C5B 4< 45 ;8J=&A &" 595: 95W8&95B 45 5L5A8 &-"! <"B :4;< 6&:45B & B-"5 <"B 6&:45B - 5:A<;5 45 95:;-":&J&=& $ 45 6&:45B - J5 <J=5 - :< 4< & 4<B "- J55" B-"5 J 459 -9B59! <"B :45 6<: "- =&D5= - J5 :A98;8=-8: &" 45 ?5<": 64&A4 :45 ?&>4 8:5 - A-"C&"A5 45 6-9=B -7 459 &""-A5"A5

55=&"> 4&?:5=7 -" :=&;;59 >9-8"B! <C&:-" A<99&5B 4&: ;59;=5L& &5: - 7=< -" 45 %855"! 45 :<&B! 4<B >&C5" 4&? < ;-:& &C5 -9B59 - :5"B 45 6<99<" - 45 -??&::&-"59:! J8 45 >< 4595B 79-? 459 ?<""59 4dK

 <=:&";$=??<"B <C&:-" - &9 ? <: <8=5 9&" 5B &" &A4-=<:O &75 -7 <C&:-"

:&&5' ?5<"' -' B&:<C-6'& ' 5'D"56'"-'645 459' -':5"B'
&' -9' "-' :5"B'&!' <"B'&"' 5& 459' A<:5' 45' B<95B' "-'<A'
<=-"5' < -"' 45:& < 5B' -' <BC&:5!' J8' <AA-?;<"&5B' 48:B<!
45':5A95 <9' -' 89>4=5 !' 64-' 6<:' A-"7&"5B' -' 4&:' J5B'
6& 4' 45' >-t !' <"B' 89>4=5 ';59A5&C&">' 45' 8"7<&9"5::'
-7'=5<C&">' <C&:-"' 6& 4':-' 95?5"B-8:' <'95:;-":&J&=& !'
B<95B' 45' %855"@:' B&:;=5<:895!' <"B'&"' :;& 5'-7'459' &"S
R8"A&-":' -7':5A95: !'&"C& 5B':8A4'-7' 45' -8"A&=' <:' 65&$5
&"' -"B-"' -' A-?5' -' 4&:' 9--?' 45' 7-==-6&">' B<' $%5, '
5&A5: 5&@! -6<9B!' 8":B-"!' -J4<?!' &9' 9<"A&:' #U U
"-== :!' <"B' -9B' 59J'< 5"B5B' <=:&">4<?'A<?5!'
<"B' < -"' <"B' <C&:-"' 4&?:5=7' "' 45'6&=' <"B'95:-S
=8&-"' -7' 45:5' 5"' 48">' 45'=&75'-9'B5< 4'-7' (<9' 8<9'
89>4=5'<"B' <=:&">4<?!'<7 59' 45' ;<9' 64&A4' 45'
4<B' <D5"'&"' 45' ;9-:5A8&-"!' ?&>4'J5':<&B' -' 4<C5'<"'
&" 595:'&"' 459' 5L5A8&-"'' :4-8=B':45'5C59'A-?5' -' 45'
49-"5'&' 6<:'=&D5='' -'>-'4<9B'6& 4' 45?' 8' 59J'
<"B' -J4<?' <"B' -6<9B' 4<B' "-4&">' -' 75<9!' 5& 459'
;9&C< 5='7-9' 45?:5=C5:!'7-9' 45' 4<B'J55"' 459' 79&5"B:
9' -"' >9-8"B:'-7'95=&>&-"!'7-9' 45' 6595':5?&$ <4-=&A:
45'<'=5<:'J9-8>4' -' 45' ?55&">' ?&"B:'8"J&<::5B'
J'<" ' A-"A5&C<J=5' A-":&B59<&-"' :<C5' 4<' -7' ;8J=&A'
P5A5::&

89>4=5'=<&B'J57-95' 45?' 45'5L<A'A-"B&&-"'-7' 45'
<:5' 45' %855"' 4<B' :&>"5B' 45' 6<99<"!' <"B' 4<B'
B-"5' <==' 4<' 6<:' -"' 459' ;<9' 5::5"&<=' 5' B&B' "-'
-"A5<=' 459' B5:&95' 4<' -459:' :4-8=B' B&C&B5' 45' J89B5"'
6& 4' 459!' 4<' :45' :4-8=B' J5'<==-65B' -';9-75::!'7-9' :8A4'
<'B5:&95' A-8=B' ?5<"' "-'=5::!' 4<' 45' <A' 4<B' "-'J55"'
5" &95='459' -6"' 5' :<&B' 4<'7-9' 4&:' -6"' ;<9' 45'
J5=&5C5B' 45' 5L5A8&-"' -'J5' <J:-=8 5=' "5A5::<9' 5'
A-8=B' "-'<A' <=-"5!' J8'&7' 45' -8"A&=' 6-8=B' :8;;-9'
4&?' 45' 6<:' ;95;<95B' -'C5" 895' 45' 9&:D!' <"B' 45' ;594<;:'
&?;=&5B' 4<'&7'&' 6<:' "-' B-"5' 45"' &' 6-8=B' "5C59' J5'
B-"5'<'<==

? 45 :& 8< &-" 6<: ;5975A = & " 5==&>&J=5 =&I<J5 4 :
A-"B8A 6<: "- "-J=5! J8 & 6<: "< 89<= <"B ;<9B-"$
9&B< *HO 5=7<95 -7 45 A-8" 9 95W8&95B <" <A -7
J ?4 ? :5C59& 64&A4 :45 6-8=B 459:5=7 4<C5 >=<B= B&:;5":5B
6& 4 45 6-9=B! &7 :45 A-? ?<"B5B & 459:5=7! 6-8=B
95;9-<A4 459 6& 4 ;59:-"<= C&"B&A &C5"5::! <"B :45
:498"D 79-?5"A-8" 59&">< A4<9>5 64&A4 :45 D"56 -
J5 8"R8:

C59 ?&"&: 59 ;95:5" <>955B &" 45 ?-?5" -8: 95S
:-=8 &-" 45 59?: -7 & &?;=&5B 4< 45 %855"
:4-8=B J5 9-8J=5B " 789 459 45 4<B 459:5=7 8:5B
4-:5 C59 6-9B: - <C&:-" -9B 5" <"B -9B
4956:J89 6595 45 -??&::&-"59: "<?5B -:55 45
6<99<" 5L5A8 5B 4956:J89 6H<: : < &"> &" 45
"5&>4J-894--B -7 - 459&">< 5" 6<: < 4&: 4-8:5
< 95: ! &" 5B7-9B:4&95! "- ? <" ? &=5: B&: <" $
45 "5A5::<9 =5 59: 6595 69& 5" - 45?! <"B 6& 4
45:5 <"B 45 C<9&&<" & :5=7 5A95 <9 5<=5 =57 -"B-"
5J 7 7 5<9= - " < 89B< ? -9"&"> H =&I<J5 4 A-8=B 4<9B=
4<C5 7<&=5B -:>85::: 64< 4<B J55"B-"5! J8 :45 A4-:5
-D"-6" - 4&">! <"B <:D5B "-W85: &-": 756 4-89:
<7 59 5<=5 4<B >-"5 :45 :<&B - <EC&:-" 4< :45 4<B
B95<? 45 "&>4 J57-95 4< 45 %855" -7 A- : 6<:
5L5A8 5B! <"B 4< :45 6<: :- <">& - " 45<9&">-7 &
4< &7 :45 4<B 4<B < :6-9B :45 6-8=B 4<C5 98" 4&?
49-8>4 45 J-B s 45 =<8>45B <: :45 6<: :;5<D&">"
<C&:-" =<8>45B <=:-! <"B <":6595B & 6<: 65=: 45 6<:
"- &" 459 C< 64&=5 4< 48?-89 =<: 5B 5 <><&"
<:D5B 459 &7 :45 4<B A4<">5B 459 ?&"B ! -! J -B!
:45 95;=&5B! J8 :45 6&:45B & A-8=B J5 B-"5 &" :-?5
! 6< 4< 6-8=B "- 49- C 45 J=<?5 -" 459

! ==: 45:5 B5 <&=:<95 <D5" 79-?: //" ; " 4(<!
<C&:-"!: "<99< &C5:! ;9&" 5B &" 45 $!

8"B<' ?-9"&">' A<?5!' <"B' 6& 4' &' <8=5@:' <": 659'
-' <=:&">4<?@:' =5 59' 5!' --! 8"B59: --B' 64<'
=&I<J5 4' 6<" 5B!' J8' 45' 6<:' --' :4956B' -' 7<=' &" -'
45' :"<95' :' 45' A'-7' <9=&<?5"' 4<B' &" 59;&@5 5B'
45'<::-A&<&-"' J-"B!' 45'%855"@:' A-?7<"B' 6<:' 95W8&95B!'
<"B&' 6<:' ;95A&:5=' 4&:' 64&A4' :45' 4<B' "-'>&C5"
@' 6<:' <"' 8"4<;;' B<' 7-9' 4&?!@ 45' 69-5!' @ 645"'
@ 45H6<:' 95W8&95B' J' 4&:' -C595&>"' -' B-' <"' <A' 64&A4'
@ -B' <"B' 45' =<6' 7-9J<B5' &:' >--B:' <"B' =&75' 6595' <'
@ 459' (<R5: @:' B&:;-:<=!' J8' 45' 6-8=B' "-' ?<D5' :4&;$
@ 95AD' -7' 4&:' A-":A&5"A5!' -9' =5<C5' :-' >95<' <' J=--' -' 4&:'
@;-: 59& '<:' :45B' J=--B' 6& 4-8' =<6' -9' 6<99<" @
45' 6<:' C59' J& 59' 45' :<&B' 45' 6<:' <;95A&:5' 75==-6!'
s4-';9-75::5B' I5<=' 7-9' 459' :<75 !' J8' 645"' 45' &?5'
<?5' 6-8=B' B-' "-4&">' <C&:-"' C<&"=' 5"B5<C-895B'
-' :-- 45' 459' 45' :<?;5B' <">9&=' <J-8' 45' 9--?!'
7 "B 6-' B< :' <7 59!' :8;;-:&">' ;594<;:' 4<' <C&:-"' 4<B'
D55"' --' @;95A&:5@ <=:-!' :45' :<&B' -' 4&?' 4<'&' 6<:' ?-95'
4<"' &?5' 45' ?< 59' 6<:' B&:;< A45B!' @:65<9&">' <' >95<'
@-< 4!' &' 6<:' :4<?5' 7-9' 45?' <==' 4<'&' 6<:' "-' <=95<B'
@B-"5@H
(5<" 64&=5' <:' 45' 655D:' 4<B' ;<::5B' -"!' (<9' 8<9@:'
A-"7&B5"A5' 4<B' 95 89"5B' 45' 4<B' "59C5B' 459:5=7' 7-9'
45' 6-9:' <"B' 4<B' B<95B' &' 5=&HC95' 4<B' 69& 5"!'
5" 95<&">' 459' -' ?<D5' 459' ;5<A5' 6& 4' 45' %855"' J57-95'
&' 6<:' --' =<5' 459' 7< 5' 6<:' :&==' &"' 459' -6"' 4<"B:' 8'
:45' 75<95B' 4<' :45' ?&>4' J5' J5 9< 5B' A-"75::&-"'
-8=B' B&:W8<=&7' 459' 7-9' 45' ?<9 9@:' <&8B5' 64&A4!'
&7' :45' 6<:' -' B&5!' :45' ?5<"' -' <::8?5'<"B' 4-8>4' :45'
&" 59;95 5B' <' :-8"B' -7' 4<??59:' &"' 45' 4<==' &" -' 45'
595A&-"' -7' <' :A<77-=B!' :45' 4<B' 95?<&"5B' B57&<"' <'
D<B' 7-==-65B' B<!' <"B' :45' 4<B' 45<9B' "-' ?-95' 45

@' <C&:-"@:' """@< &C5 _ !&' *6'5'L! *(' :2'4!' ,!3!-8' ;;5"B&L

8"B59: --B =&I<J5 4 <: 65== <: =&I<J5 4 8"B59: --B
459 59 <=?-"59 4<B J55"; 59?& 5B$ - 95:8?5 4&5
B8 &5:! <"B 45 8" 65=A-?5 -7759 -7 <"; ">=&:4 ?&"&: 59
4<B "- J55"; <><&"; -J 98B5B 8;-"; 459 45 4<B 69& 5";
=&I<J5 4 -"5 -7 459 ?-: ;< 45 &A =5 59:!H ;9-5: &">
<"B :65<9&">; 459 &""-A5"A5! < 9&J8 &">; 45 <AA8:< &-":
<><&": 459 - <A-": ;&9<A -7 45 89& <":! 4&" &">; &";
459 -=B 6< 4< :45 4<B :5A95 : -7 45 >9<C5: ?-?5"
-&?;<9 -459 &7 :45 A-8=B J8 A-??8"&A< 5 6& 4 459
&"; ;9&C< 5! <"B <BB95::&">; 459 &"; <-"5 &" 64&A4 <775AS
&-"; <"B 5"B59 95;9-<A4 6595 ?5= 5B &" -95:&"<&-"
-<":659 4<B J55"; :5"! J8 :45 4<B A-8" 5B R8: =
-"; 45 5775A & 6-8=B ;9-B8A5 (4595 4<: J55"; \
(=5 59!(:<&B 5&A5: 59! (64&A4 4< 4 69-8>4 5<9:!(H
45 J=-6 645"; & A<?5 < =<: 45957-95 5<?5 :8BS
B5"= 5<=5 9-B5 4<9B_ 7-9 8"=5::! 64&A4 &:8"=&D5=
45 98:5B 45 =5 59 - 5" - < :5A-"B 4<"B
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-459&"><-"; 8"B< 5C5"&"> 45 ;89;-:5 -7 4&:
A-?&"> 6<: "- ?<B5 D"-6"; &"; 45 A<: =5 <9= -"
(-"B< 45 65" &"; :5<9A4 -7 -9B 4956:J89 ! 64&=5 V
?5::<>5 6<: B&:;< A45B - 45 459&77 -7 -9 4<?; -"S
:4&95 - J5 &"; < 5"B<"A5 -"; 5B"5:B< ?-9"&"> "
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K (<9 8<9 - =&I<J5 4! -A *N$.N
K =5 59! 8":&>"5B <"B 8"S <BB95::5B! J8 5C&B5" = 69& 5"; &" <"8<9 ! <"B & 59A5; 5B <"B B5S A&;4595B J 45 ">=&:4 -C59"?5" ! A-" <&":45:5 6-9B: _
* 5: <99&C`; d -"B95: 3 B5: 4-?5?5: B5 &9 ? ": <8=5 ;-89 W8`9&9 89&5 5 B58L B5 :5: 4-?5?5: ;-89 =8 <&B59 d 7<&95 :5: A-?; <! =5:$ W85=! R5 ;5":5 W8&&&: 54 &9-" B<"K B58L -8 9-&: R-89: &<& ;<9=`<C5Ó <8=A& ?: B58=L! 5 B&:5" W85=< - " 5: R- 58:5 5 5" J-""5 :<" `5 =: B&:5" W85 :-"; -9B&S "<&95 5: B`=&C9`5 d :5: A8&:&"&59:! "8= <"& 95 ;59:-""5 "5 =< -8A45! A K =5 A-??<"B?5" B5 :< (<=/ 5:K$ W8&5==5 :-& J&5"; 5 4-"-9<J=5?5VK 9<&A `5 :<": <8=A8"5 ;<&$<B5 _ =4A! 43*$8' ( )

A<: =5 B&""59 6<: -C59! 45 :5" < :59C<" - 45 %855" -7 A- : 6& 4 < 95W85: - J5 <B?& 5B - 459 ;95:5"A5
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45 5"B 4<B A-?5 45 4<B =-">;9-75::5B -5L;5A & ! J8 45 A=5<95: 5L;5A < &-"& :" - A59 <&" 45 :A5"5 7-9 64&A4 :45 4<B <775A 5B -;95;<95 :45 6<: -5"A-8" 59&"& :B95<B 95<=& !<"B <=5 459 J8: :A45?5:! 459 B95<?: -7 C5">5<"A5! 459 C&:&-":-7 <95C-=8&-"! 6& 4 459:5=7 <:A5"B&">-8 -7 45 A-"C8=:&-"<"B :5<&">459:5=7 -" 459 9&C<=:49-"5_ <=5 6595>-"5 45 4<B ;=< 5B B55;!<"B 45 B&A5 4<B >-"5 <><&":459

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7&59 A4<;=<&" 6<: =-B>5B &" <:5;<9<5 ;<9 -7 4- A<: =5 45 -??&::&-"59:! 64- 6595 <: <"L&-c: 4< 459 5L5A8 &-": 4-8=B 65<9 &:95<=A4<9<A 59 <: :45 6< 459:5=7 B5 5""&"5B -A-"C59 & & &" - <?<9 9B-?V 9578:5B! ;594<;: 8"6&:5=! -<==-6 4&?<AA5: -=&5&V <"B -77595B 459 <><&" 45 <::&: <"A5 -7 <" ">=&A<" 5<"$ 45 ><C5 459 <" <BC<" <>5 -C59 45?6 4&A4 :45 B&B "- 7<&= -8:5 45 6-8=B "-=5 45 5<" A-?5 "5<7 459 45 :5" <"-5 - 45 A4<;=<&" 5==&">4&?4< :45 4<B ?5<" - 95A5&C5 45 :<A9<?5"! J8 <: & ?&>4 "- J5 :45 ?8: A-" 5" 459:5=7 6& 4 <>5"59<= A-"75::&-" 45 J<B5 4&?6< A4 49-8>4 45 "&>4 <"B ;9< 7-9 459 " 45 ?-9"&">645":45 6<: J9-8>4 -8 :45 ?&>4 ;594<;: :55 4&?! <"B 95A5&C5 4&: J=5::&">

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<=D -7 7-9>&C5"5::' -7 &"R89&5:' 45 J<B5 -9&-"' 5=='
4&=&;'&' 6<:' 459 =<:' ;9< 59 4<' 45 :4-8=B ;59:5C595!'
&- 6& 4:<"B&">' 459 B5< 4!'&"' 45 &"C<:&-"' -7 ">=<"B'
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4&?' "-' -' 7-9>5' 4-6' :45 4<B J55"' 95< 5B J' 5A&=!'
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K (<9 ' 8<9 ' -' B&& 95<8!' 5J' K Q 5"&58B-' :8 (<>H 5=' B&< W85'
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6<:' < <A45B -' 459 >&9B=5 ' 5B J ' 6-' -7 <8=5 @H
>5" =5?5"! 45 459&7=i C<=D&">' J57-95 459! :45 ;<::5B $*
45 A4<?J59 -7 ;95:5"A5 &"' 64&A4 :45 4<B J55"' 9&5BV

B5=' 9< <?&5" -' W85=5 4<JX<"' 45A4-' 3*3!' ' $.$!' *) (') ') 3!
5=' 5:-959-' 5A&=! -"B5 B5 5&A5: 59!' ! C - = ' #
5A95 <9&-' <=:&">4<?!' ? <:' @' (<9 ' 8<9 ' -' 45 &">')!'
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\+ ' * h*(' :*$!3' !*') ' 8'' 2(') C&!

64595' 4956:J89 !' 5" !' <8=5 !' 989 '<"B' - 459:' 6595
<& &">' -' 95A5&C5' 459' "B956' (5=C&==5!' &9' -J59 @:' $$$$$
J9- 459!' 64-' 4<B' J55"' ?<: 59' -7' 459' 4-8:54-=B!' 6<:' 6H?&" '
D"55=&">' &"' 5<9:' Q (5=C&==5!@ :45' :<&B!' Q -8' :4-8=B' 5Jj $&'
@ 9< 45&E 95R-&A5' 4<"' 655;' 4<' 45' 5"B' -7' ? ' 9-8J=5:' &:'
@ A-?5' 5=-' ? '79&5"B:' ' B&5' < 985' < 4-=&A' -?$
@ ?5"B' ?5' -' ? ':-"' 5=-' 4&?' ' 4<C5' B-"5' "- 4&">'
@ -' ;95R8B&A5' 4&:' D&">B-?' -7' A- =<"B!' <"B' :-' >--B'
@ (5=C&==5!' 7<9565== @ 45' D&::5B' 4&?!' <"B' 89"&">' <:D5B'
!7-9' 459' A4<;=<&"' B8' 95<8' 5' 6<:' "-' ;95:5" ' 4595'
4<B' J55"' < 75<9' -7' :-?5' 95=&>&-8:' ?`=-B9<?5' 64&A4' &'
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5?; 5B' -' 7-==-6' 459!' 4<B' J55"' D5;' J<AD' <=:-' 45'
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J5 95;-9 5B' J' 5"5?&5:' <"B' 89& <":!' <"B' :45' 95W8&95B'
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g &&>4' :A95<?' -9' 7<&" !' -9' < 5?; ' ;594<;:' -' B&;' 45&9'
4<"BD59A4&57:' &"' 459' J=--B' 45' 8"B59 --D' 4<' 45 '
:4-8=B' J5' W8&5' <"B' -J5B&5" ' @ 45' %855"!@ :45' :<&B!
@ 6-8=B' "5C59' B5" ' 459' :-' :=&>4' <' 95W85:' '@ <"B' 645"'
5"' : &=-' 45:& < 5B!' :45' <BB5B' 6& 4' 5<9:!' @ -8' D"-6' '
@ <?' A-8:&"' -' -89' %855"!' -7' 45' J=--B' -7' 5"9' 45'
@ 5C5" 4!' <' ?<99&5B' %855"' -7' 9<"A5!' <"B' <"-&" 5B'
@ %855"' -7' A- =<"B @
' 6<:' &?;-::&J=5' -' 9578:5' 45' 6<:' <==-65B' -' <D5'
&L' -7' 459' -6"' ;5-;=5' 6& 4' 459!' <"B' :5=5A' 45?' 459:5=7
45' A4-:5' 459' ;4 :&A&<"' 89>- "5!' "B956' (5=C&==5!'
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@ ==-":'B-"A!@ :45' 45"' :<&B_ @ 5'8:'>-!@ <"B' ;<::&">'
8' < 5"B5B' J' 45' <9=:!' <"B' =5<"&">' -"' 45' <9?' -7' <"

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*M3, A-8" 9 4-8:<"B: -7 ;5-;=5 6595 A-==5A 5B -8 :&B5
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459&77@: >8<9B -7 4<=J59B&59: 6595 9<">5B -" 45 7=--9
J5=-6 -" 45 7-89 :&B5: -D55;-77 45 A9-6B "4"
:A<77-=B 6<: 45 J=-AD! J=<AD =&D5 45 95: " < :W8<95
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A8:4&-" < J=<AD A4<&9" -" 45 9&>4 6595@ 6-459
A4<&9:7-9 45 <9=: 45 <L5 =5<" <><&": 45 9<&=!
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45 459&77 : --B <459 =57 4<"B! <"B 5<=5 45&H
?-8" 5B < ;=<7-9?<"B 95<B 45 6<99<" <=-8B K
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@ -8 6&== B- -89 B8 !@ :45 <": 6595B! <"B 9-:5
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Q %855"@: ?-: 5LA5==5" (<R5: '@ Q (<B<?! 45 %855"@:
Q ?-: 5LA5==5" (<R5: @_ 49&A5 45 A-??5"A5B 4&: 53
:5" 5"A5! 6<" &"> 6-9B: -; 89:85 & (<5" 45 95S B;G
#01*1
;5< 5B 45 6-9B: <7-89 4 &?5! :45 A8 4&?: 4-9
Q (9 5<"!@ :45 :<&B! Q <?<<4-=&A! <"B ?8: B&5
Q < <4-=&A &: 8:5=5::- <5?; -?-C5 ?5! <"B
Q -89 ;&E< 59: ,@1 <C<&=?5 J8 =& =5 @
K 4<">5 -89 -;&"&-" (<B<?!@ 45 A9&5B! 4&: -">85
J5&"> =--:5B <=<: Q 95;5" -7 -89 :&":! :5 =5 -89
Q 7<& 4 &"" 49&: ! J 4&?- J5 :<C5B @
Q 9-8J=5 "- -89:5=7 789 459! (9 5<"!@ :45 <"S
:6595B Q *<?:5 =5B &"" ? -6 "7<& 4!7-9 64&A4 ?5<""
Q -:45B ? J=--B @
Q <?:-99 (<B<?!@ :<&B 4956:J89 ! Q -:55 -8
Q :-<BB&A 5B -- ;59 @ P
Q 4< &?<>5 -7 49&: -8 H-=B 45L=5!@ :<&B 5" !
Q 6&=="- ;9-7& -8&7 45 J5 "- '5">9<C5B &"" -89 45<&@ @
45 B&B "- 95;= !<"B 89"&"> 459 J<AD -"" =5 A459
D"5= 7-9 459 -6 "" B5C- &-":
5 4<B J55"" 5C&B5" = '&": 98A 5B -'&?;<&9 45 <4-S
=&A A-?;=5L&-"" -7 45 :A5"5! <"B 45 %855"" -7 A-: 6<:
B5 59?&"5B 4< 45 :4-8=B "- :8AA55B 45"" :45
D"5= 45 A-??5"A5B <"" 5L 5?;-95 ;9< 59 &"" 64&A4 45
<::5?J= R-&"5B 0k :' 4&:' C-&A5 :-8"B5B -8 &"" 45 4<=
:45 9<&:5B 459 -6 "! 95A& &"> 6& 4 ;-sC5978= B55;$A45: 5B
-"5: 45 ;5"& 5" &<= :<=?:'&"" <&"! &" 9-B8A&"> ">$!
=&:4 :5" 5"A5:' <'&" 59C<=:! 4<' 45 <8B&5"A5 ?&>4 D"-6
64<' :45 6<:' :<&">! <"B ;9< &"> 6& 4 5:;5A&= B&: &"A S
"5:: 7-9 459 4-= 7< 459 45 -;5
9-?' &?5 -' &?5! 6& 4 A-":;&A8-8:' C545?5"A5! :45
: 98AD 45 A98A&7&L' <><&": 459 J-:-?! <"B 45"! <:' 45
5<"" ><C5 8;' 45 : 98>>=5! =5<C&"> 459 < &"! :45 ;9< 5B
" ">=&:4 64-== ! : &== A=5<9 <"B =-8B 45 ;&@< 5B
""&I ' # ! I

7-9 45 489A4 64&A4 :45 4<B J55"" 95<B - J5 9< ! 7-9
459 :-"! 64- ?: :45 4<B B&:&"459& 5B! 7-9 45 %855"" 64- ?:
:45 4<B 5"B5<C-895B -? 89B59 45 ;9< 5B -B -
<C59 4&: 69< 4 79- ?: ">=<"B! 4< ">=<"B 64&A4 :45
4<B :5" <=<: ?5::<>5 - 4&=&;: - J5:55A4 4&?: - &"S
C<B5 45 7-9><C5 459 5"5?&5:! 64- ?: :45 4<B &"C& 5B
4&=&;" - - 7-9>5 ! <"B 45"! ;9< &"> - 45 :<&" : -
&" 59A5B5 7-9 459 6& 4 49&: ! <"B D&::&"> 45 A98A&7&L
<"B A9-::&"> 459 -6"" J95<: ! C5"" <: 4 <9?:! -4
5:8:!@ :45 A9&5B! @6595 :;95<B 8;-"" 45 A9-::! :-95$
A5&C5 ?5&" - 4 ?59A <"B 7-9>&C5 ? :&": @
& 4 45:5 6-9B: :45 9-:5" 45 J=<AD ?8 5: : 5;;5B
7-96<9B! <"B &"" 45 8:8<= 7-9?: J5>>5B 459 7-9>&C5"5::
@ 7-9>&C5 -8!@ :45 :<&B! @7-9 "- C 4-;5 -8 :4<==
@5"B <== ? 9-8J=5: @ 45 -77595B 45&9 45=;: &"" <9
9<">&">" 459 B95:: @ 98= ! ? =-9B:!@ :45 {<&B 6& 4
:?&=5 - 45 <9=:! @ "5C59 4<B :8A4 >9--?:6<& &">- !
@ ?5 J57-95 @ 59 =<B&5: 6595 <==-65B - A-?5 8;8;-""
45 :A<7=7J=B - <::&: 459 7-9 45 6-9D - J5 B-"5 6<
A-":&B59<J=5! <"B 4<B J55"" ;95;<95B 6& 4 "- A-??-""
4-8>4
45 =<&B 459 A98A&7&L -"" 459 A4<&9 45 A4&57 5L5APE
&-"59 --D & <: < ;59W8&:& 5! J8 C<: -9B595B &": <" = -
=< & B-6" 45 =<6"" C5&= 6<: =&7 5B A<9578== -77
"- - B&: 89J 45 4<&9! <"B 6<:$48">8;-"" 45 9<&=K
45 J=<AD 9-J5 6<: "5L 95?-C5B 5=-6 & 6<: "
;5 &A-< -7 A9&?:-"" C5=C5 45 J=<AD R<AD5 7-==-65B&
<"B 8"B59 45 R<AD5 6<: < J-B -7 A9&?:-"" :< &" "H
-7 459 =<B&5: 4<"B5B 459 < ;<&9 -7 A9&?:-"" :=55C5:! C& 7&
C4&A4 :45 4<: &= A-C595B 459 <"": <"B 48: :45 : --H
-"" 45 J=<AD :A<7=7-=B 6& 4 45 J=<AD 7&>895: <== <&@-8"B
459! J=--B$95B 79-?: 45<B -7-- H

H @ -"" A- &==-"" 5: -& B5 C5=-89: 9-8>5 5 5: <" B5:;-8&=Z5 R8:W85H
9-8>5 5 =5 A-9;: 5: -& B5 :< &" d A5 A- &==-"! =@8"5 B5 :5: B5?-&:5==5:

59 95<:-":'7-9 <B-; &">' :-' 5L 9<-9B&"<9 ' < A-: 8?5 ?8:' J5 =57' -' A-"R5A 895' ' &:' -"= ' A59 <&"' 4<' & ' ?8:' 4<C5 J55"' A<9578== ' : 8B&5B!' <"B 4<' 45 R;&A -9&<' 5775A' ?8:' 4<C5 J55"' <;;<==&">

45 6-?5"!' 64-:5 7&9?"5::' 4<B 4& 459 -' J-9"5 45 9&<=!' J5><"' "-6' -' >&C5 6< !' :;<:?-B&A' :-J:' J89:&">' 79-?' 45?' 64&A4' 45' A-8=B "-' A45AD' Q 5 A9&5I' Q C-8:!@ :45 :<&B!' Q R@<' ;9-?&:' ;-89 C-8:@' 98>>=&">' J9<C5= !' 45' A9-::5B 45&9 J95<:' <><&"' <"B <><&"!' :45 A9-::&">' 45?' &"' 89"' <"B J&BB&">' 45?' ;9<' 7-9 459' 45"' :45 D"5=' -"' 45 A8:4&-"' <9J<9<' (-6J9<' J-8"B 459 5 5:' 6& 4' < 4<"BD59A4&57 H Q B&58!@ :45 :<&B!:?&=&">' 7-9 45 =<:' &?5<"B 6<C&">' 459 4<"B -' 45?!' Q B&58!' <8 95C-&9@ 45' :' 5;;5B J<AD 79-?' -77 45 :A<77-=B <"B =57' 459 <=-"5' "' 459 D"55:' :45 95S ;5< 5B 45 :<=?!' "' 5!' -?&"5!' A-"7&B-!' Q "' 455!' -4 Q -9B!' 4<C5' ;8' ?' 98: @ 59 :4-8=B59:' J5&">' 5LS ;-:5B!' 6-' :A<9:' J5A<?5 C&:&J=5!' -"5' -"' 5& 459 :&B5!' <"B 45 <9=:' J5&">' "-6' < =& =5' J54&"B 459! 5"' ;-&" 5B -' 45?' 6& 4' 4&:' 64& 5' 6<"B <"B =--D5B' 5"W8&9&">=' < 4&:' A-?;<"&-"' 4956:J89' 64&:;595B' 4<' 45' C595 45 95?<&":' -7 6-' <J:A5::5:' 79-?' 64&A4' :45 4<B :877595B' 64&=5' =&C&">' 6& 4' 4&?' <' 4577&5=B

45"' 45 ;:<=?' 6<:' 7&"&:45B :45 75=' 7-9 45 J=-AD!' <"B=< &">' B-6"@459 45<B ?8 595B' Q "' ?<"8:!' -?&"5 Q 8<:!' A-??5"B-' <"&?<?' ?5<?@ 45 4<9B 6--B

=&=' < <"' <;;-9`' 8"5 ;<&95 B5 :< :' 6& 4' < -9;8:' 49&:&' A=-4' ?<"A45:' B5 :< &"' 9-8>5=<W85==5' 5==5 "-459 :< :' Q 6& 4' < 4<"BD59A4&57 ?&:' 5"' :5:' J9<:' 5' 5'<&": '78' 5L`A8 `5 -7' A<?J9&A!' <=' 69-8>4' -C59 $6& 4' -8' 5"' 9-8>5@_' O '2' 'BB* $')' >-=B' "55B=56-9D@< +' B* $' *6' 8P VF3+$!*('6'!3$' +'8''B *((')'8'' $8-') '$' *6'$ '$' ' ' '()' R !(3 82' Q*2(' i 3* ' 5& 'C-=' &C =' $2' V 3+$)' 6* ' 3*(3! (3' '$ 6 3' .%%& 3' !$*3 5' #' * ' *! $!(7+2' 5J' 3!' *M3,' =44' &$* *3.' $' 635 $* ' &' ** 24') ! /' ' + '

#

*M3,

x="5:$

B< !

5J ' $*3

:55?5B - 489 459! 7-9 :45 ;=<A5B 459 4<"B: 8"B59
459 "5AD 45 5L5A8 &-"59: >5" = 95?-C5B 45?! =5:
45 :4-8=B B5<B5" 45 J=-6! <"B 45" -"5 -7 45?
4-=B&">459 :=&>4 = ! 45 - 459 9<&:5B 45 <L5 <"B : 98AD
45 :A5"5 4<B J55" - 9 &">5C5" 7-9 45 ;9<A &:5B
45<B:?<" -7 45 -659 &: <9?6<"B595B 45 J=-6
75== -" 45 D"- -7 45 4<"BD59A4&57! <"B :A<9A5= J9-D5
45 :D&" 45 "5& 459 :;-D5 "-9 ?-C5B 5 : 98AD
<><&"! 4&: &?5 5775A &C5= 45 45<B 48">J < :495B
-7 :D&"! 64&A4 45 B&C&B5B 6& 4-8 6& 4B9<6&"> 45 <L5
<"B < -"A5 < ?5<?-9;4-:&: 6<: 6& "5::5B! : 9<">5
<: 6<: 5C59 69-8>4 J 6<"B! -7 7<J=5B 5"A4<" 59$
45 A-&7 75== -77 <"B 45 7<=:5 ;=<& : 45 =<J-895B
&==8:&-" C<"&:45B 45 =<B 64- 4<B D"5= J57-95 45
J=-AD 6<: &" 45 ?< 89& -7 >9<A5 <"B =-C5=&"5::$
45 5L5A8 &-"59! 645" 45 9<&:5B 45 45<B! <: 8:8<=! -
:456 & - 45 A9-6B! 5L;-:5B 45 6& 4595B 75< 895: -7
< >9&II=5B! 69&"D=5B -=B 6-?<"
 - ;59&:4 <== 5"5?&5: -7 45 %855"! :<&B 45 5<P
-7 5 59J-9-8>4 =-8B ?5" 9-:5 -C59 45 4<=$
 8A4 5"B! :<&B 45 <9= -7 5" ! 9&:&"> <"B : <"B&">
-C59 45 J-B ! - 45 %855"@: <"B 45 -:;5=@: 5"5E
?&5: @
9B59: 4<B J55" >&C5" 4< 5C59 4&">64&A4 :45 4<B
6-9" :4-8=B J5 &? ?5B&< 5= B5: 9- 5B! 4< "- 95=&A
:4-8=B J5 A<99&5B -77 - 6-9D &?<>&"<9 ?&9<A=5: 5"EE
&"5=: : --B < 45 B--9: 64-! <==-65B "- -"5 - ;<: -8
6& 4-8 ;59?&: :&-" <"B <7 59 45 7&9: ;<8:5! 45 <9=:
: &== D55;&"> 45&9 ;=<A5:! 45 J-B 6<: : 9&;5B
45" <;;5<95B 4< <7<C-89& 5 =<;B-> 4<B 7-==-65B & :
?&: 95: 8";59A5&C5B! <"B 6<: A-"A5<=5B 8"B59 457
A=- 45: 645" B&:A-C595B & >< C5 <:4-9 A9 ! <"B :5< 5B
&:5=7 J5 655" 45 45<B <"B 45 "5AD! 79-?64&A4 45

J=--B' 6<:' : &=='7=-6&">' ' 6<:' A<99&5B' <6< ' <"B' A<95S - - - (=
78== ' 6<:45B!'<"B' 45"' J5<B:!' < 59"-: 59!' 4<"BD59A4&57_'
k_5<A4' ;<9 &A=5' -7' B95:' 64&A4' 45' J=--B' 4<B' -8A45B!' C
k 6&4 45' A=-4' -"' 45' J=-AD' <"B' -"' 45' :A<77-=B!' 6<:' D43 4 J
J89"' &"' 45' 4<==' 7&95' &"' 45' ;95:5"A5' -7' 45' A9-6B' /0 3, 7)& '
45' :A<77-=B' & :5=7' 6<:' "5L' 95?-C5B' <' J9&57' <AA-8"'
-7' 45' 5L5A8 &-"' 6<:' B9<6"' 8z!' 6& 4' 64&A4' 5"9' <=S
J-!' -9B' 4956:J89 @:' :-"!' 6<:' :5"' -' -"B-"!' <"B'
45"' 5C59' -"5' 6<:' B&:?&::5B' &=5"A5' :5 =5B' B-6"'
-"' -459&"><!' <"B' 45' =<:' :A5"5' -7' 45' =&75' -7' (<9'
8<9!' &"' 64&A4' 9<>5B' <"B' ?5=-B9<?<' 6595' :-'
:9<">5='&" 59?&">=5B!' 6<:' -C59

' :;5A < -9!' 64-' 6<:' -"5' -7' 459' 6<9?5:' <B?&959:!'
B5:A9&J5:' 459' J5<9&">' <:' &"7&"& 5=' 9<":A5"B&">' 45'
;-659' -7' 45' ?-:' <AA-?;=&:45B' <A -9' -' 95;95:5" H'
45' <::-A&< &-"' -7' 45' :<>5' 6<:!' ;594<;:!'8"A-":A&-8:='
8>>5:5B' J' 64<' 6<:' &"' 7<A!' "-6&4:<"B&">' 45'
95?5"B-8:' 95<=&' 6& 4' 64&A4' &' A=-:5B!' 45' ?-:'
J9&==&<"' <A &">' 49-8>4-8' 45' ;=<&"' >95' B95:'
k -8B4<C5' :877&A5B!' 4<B' :45' A<95B' -"=' -'>-' 49-8>4'
& 4' :&?;=&A& ' 45' ;<9' 64&A4' 6<:' <::&>"5B' 459' E 45'
&" 5"B5B' -' ;9-B8A5' <' B9<?<' &A' :5":<&-"!' <"B' :45' :8AS
A55B5B' 45' :5=7$;-::5::&-"' 6<:' 7<8==5::!' 45' A-89<>5'
:;=5"B&B' 5C59' B&B' <"' 48?<"' A95< 895' ?55' B5< 4'
E7 &-95' J9<C5=' 5!' &"' 45' ?&B:' -7!' 45' <B?&9< &-"' <"B'
;&' 64&A4' A<""-' J5' 9578:5B' 459!' &' &:' "-' -' J5' 7-9S
>-5"' 4<' :45' 6<:R=5<C&">' 45' 6-9=B' 6& 4' <' =&5' 8;-"'
459' =&;:' 45' 6<:' <' J<B' 6-?<"!' B&:>8&:5B' &"' 45' =&C59'
"7' <' ?<9 9!' <"B!' &7' &"' <" ' :5":5' < ' <==' :45' 6<:' :87759$

K E &'=5';=8:';<97<&' 9<>&W85' W8&' 4`n 95!'&=';-&89-&' ?`9& 59' W85=W85:'
78:'R<?<&:' C5"-&'d';9`:5"'<C5A'8"' =-8<">5:!'?<&:'-"'=5'9-8C59-&'A-89 E
B`:&95' 5' :5&">' &"B&A&J=5' B5' 95;9`S _'O '2' ='BB* $'1D3' ,& *' C-=' &C
:5" 59' :<' A-" 5"<"A5!' ;<9-==5:' 5'
>5:5:' 5' 7<^-"' B5' 7<&95' :89' 8"

F1. ! $* 2 *6 (78' ( ) P

&"> 7-9 459 95=&>&-"! & 6<: J5A<8:5 :45 4<B :456"
459:5=7 A<;<J=5 -7 4-:5 B5 5: <J=5 A9&?5: 64&A4 &" 45
:&L 55" 4 A5" 89 <; ;5<95B - J5 45 ;9-;59 798& : -7&
- <::8?5 <"B - A<" 49-8>4 45 A4<9<A 59 -7 <
C&A &? -7 95=&>&-8: &" -=59<"A5! - 5L4&J& 459:5=7 <: <"
5L<?;=5 -7 :<&" =&"5::! :8&759&"> 7-9 B5C- &-" - 45
98 4! 6-8=B J5 - 6&" 45 C&A -9 -C59 =&I<J5 4! 5C5"
&" B575< <"B B5< 4 - 7<: 5" 8;-" 459 45 95;8 < &-" -7
< ;59:5A8 -9 64&A4 :45 4<B ?-: 5"B5<C-895B - <C-&B!
- : <?; 459 "<?5 6& 4 &"7<? ! <"B ;-::&J= B9<> 459
B-6" - B5: 98A &-"
-9 A<" & J5 :<&B 4< :45 7<&=5B 45 A-8=B "- !
&"B55B! : < 45 ;9->95:: -7 45 57-9?<&-"! ?<D5
">=<"B < ;9-C&"A5 -7 ;<&"! -9 <995: 45 B&::-=8 &-"
-7 <" 5L;=-B5B A955B J8 :45 J5A<?5 <7& &"> 8 5=<9
:<&" 7-9 45 :5" &?5" <= -?<"&:? -7 45 ?-B59" 6-9=B
45 4<: 4<B 459 95C5">5! &7 "- -" =&I<J5 4 =&C&">! 5
-" 459 ?5?-9 &" 45 <""<=: -7 459 A-8" 9 ! <"B ">
=&:4 4&: -9 6&= A-" &"85! ;9-J<J= - 45 5"B -7 &?5!
- 95;95:5" 45 95< ?5" -7 (<9 8<9 ! 64&A4! &7 &
5995B < <=! 5995B 79-? 45 J5>&""&"> -" 45 :&B5 *!
=5"&5"A <"B 65<D"5::! <: 45 -"5 &"B5=&J=5 : <&" -9
45 95;8 < &-" -7 45 >95< %855"
(4- "-6 B-8J :!9 69& 5: <" 5=-W85" ?-B59" 69& 59!
(4< & 6-8=B 4<C5 J55" 6&:59 &" =&I<J5 4 - :;<9H
(459 =&75 i < 459! 45 ;-=& &A< 6&:B-? -7 <A9& &A< <"B
B&77&A8= <A 4<: "5C59 &" 45 6-9=B: 4&: -9 J55" ?-95
:&>"<== R8: &7&5B   A8 <6< 45 -"= &" 595: -"
64&A4 45 A- A4 <"B ">=&:4 < 4-=&A: A-8=B ;-::&J=
4<C5 A-?J&"5B   B5 59?&"5B 4&=&; 8;-" 45 8"B&:S
>8&:5B ;89:8& -7 45 ">=&:4 49-"5! <"B & 5"=&: 5B
<><&": 4&? <"B 4&: ;9-R5A : 45 ;<::&-"< 5 ;< 9&- &:&"
-7 45 ">=&:4 "-J&=& ! 64- 9578:5B - J5 5?; 5B! 5C5"

=&56'kA95E5Y! Ó b= 5&K<' bb5' &~B5R;5<dE5 5' ' =<5k<K '
O-8E&< & ' ' -"A5' <?Y75' 5C59' &' B5: &H 5d' D5' =) &;5 __ '
D<' D5' Rg<<B:4' 9"X<B<' 6-8=B' 75B' <' z;<9 ' ' 65=$ &A9&&G-H'
-"5 & ' 7D5' 5" &95' <D-(5' 9><<&:< &5"! <:' B&955 5B'
><&":' <>~<"B! 6<:' :-<& 5 ' 6& D' ;<&&<= :&:R' <<&B' D5'
%<55<' 7 8<B' D59:5&7! 6D5"' D5' &<C<B59' <99&C5B' <'=<: ! '
OHkR; &H5B J ' &&5' =- <=' 5" D&8:&<:"<& 7' < ' V&&BBC&B5B

‘ <D&">‘ 8 ; - "‘ 45 ? : 5=C5 :‘ -‘ B&95A ‘ 45‘ 5L5A8 &- "‘ -7
$$$$$ ‘ ‘ 45‘ %855"‘ -7‘ A- :!‘ 6& 4 - 8 ‘ - J <&"&">‘ -9‘ :55D&">‘ <
=5J98=9 ‘ &%-95‘ & ? ? 5B&< 5‘ :<"A &- "‘ 79- ?‘ 45&9‘ ? &: 95: : !‘ 45‘ -8"A&=‘
4<B‘ " - ‘ B&:>8&:5B‘ 79- ?‘ 45 ? : 5=C5 :‘ 45‘ ; 9 - J<J&=& ‘ 4< ‘
:45‘ ? &>4 ‘ <775A ‘ -‘ J5‘ : 89 ; 9&:5B‘ <"B‘ B&: ; =5<:5B ‘ 45 ‘ 4<B‘
A- " : A&- 8 := ‘ B5:&95B‘ -‘ 95=&5C5‘ 459‘ -7‘ ; <9 ‘ -7‘ 45‘ J89B5" ‘
45 ‘ A- 8=B‘ J5<9‘ 45&9‘ :4<95‘ -7‘ & ‘ - "= ‘ 49 - 8>4‘ : - ?5‘
; 8J=&A‘ B&: A=<& ? 59‘ 79- ?‘ 459 : 5=7!‘ : - ?5‘ 7 - 9 ? <=‘ ; 9 - 75 : : &- "‘
4< ‘ :45‘ 4<B‘ " - ‘ &" 5"B5B‘ 45‘ 5L5A8 &- "‘ -‘ <D5‘ ; =<A5$
48 :‘ ? 8A4‘ 6<:‘ &"‘ 45‘ "< 895‘ -7‘ 4&">:‘ &"5C& <J=5 ‘ -‘
? <D5‘ 8 : 5‘ -7‘ - 459 :‘ &"‘ A9& &A<=‘ - ; 59< &- " :!‘ <"B‘ 45"‘ B&: S
<C - 6‘ 45 ? !‘ 6<:‘ 459‘ : : 5 ? < &A‘ 4<J& !‘ ? 5<"‘ <"B‘ ; <= 9 ‘
&7‘ 95><9B5B‘ 6& 4 - 8 ‘ A- " : &B59< &- "‘ -7‘ : 899 - 8"B&">‘ A&9A8 ? S
: <"A5 :!‘ B575" : &J=5‘ <"B‘ 5C5"‘ 5LA8 : <J=5‘ &"‘ <"‘ <>5‘ -7‘
8"&C59 :<=‘ &" : &"A59& !‘ 645"‘ 45‘ B8 ‘ A<: ‘ 8 ; - "‘ 459‘ 6<:‘
45‘ ; 9 - 5A &- "‘ -7‘ ">=<"B‘ <><&" : ‘ <‘ >&><" &A‘ < 4 - =&A‘
A- " : ; &9<A !‘ 64&A4!‘ 8" 6&==&">‘ -‘ <: : <&=‘ 459‘ - "‘ 45‘ A- "S
75 : : 5B‘ >9 - 8"B‘ -7‘ 95=&>&- "!‘ 6<:‘ 6< A4&">‘ & :‘ - ; ; -9 8"& ‘
-‘ 7<: 5"‘ <‘ W8<995=‘ 8 ; - "‘ 459‘ &"‘ <; ; 5<9<"A5‘ ; -=& &A<=
45‘ " - "$95 : ; - " : &J&=& ‘ -7‘ 45‘ -C595&>"‘ &:‘ " - 6‘ <
95A->"&:5B‘ B - A 9&"5‘ -7‘ 45‘ A- " : & 8 &- "‘ 45‘ <= 59"< 5‘
<"B‘ - ; ; - :& 5‘ ; -=&A&5:‘ -7‘ 45‘ ; <9 &5:‘ 64&A4‘ B&C&B5‘ 45‘
? ; &95‘ <95‘ 95A - ? ? 5"B5B‘ 79- ?‘ 45‘ 49 - "5‘ 6& 4 - 8 ‘ 5LS
; - :&">‘ 45‘ 9&"A5‘ -‘ 45‘ 95 ; 9 - <A4‘ -7‘ &"A - " :&: 5"A ‘ 45

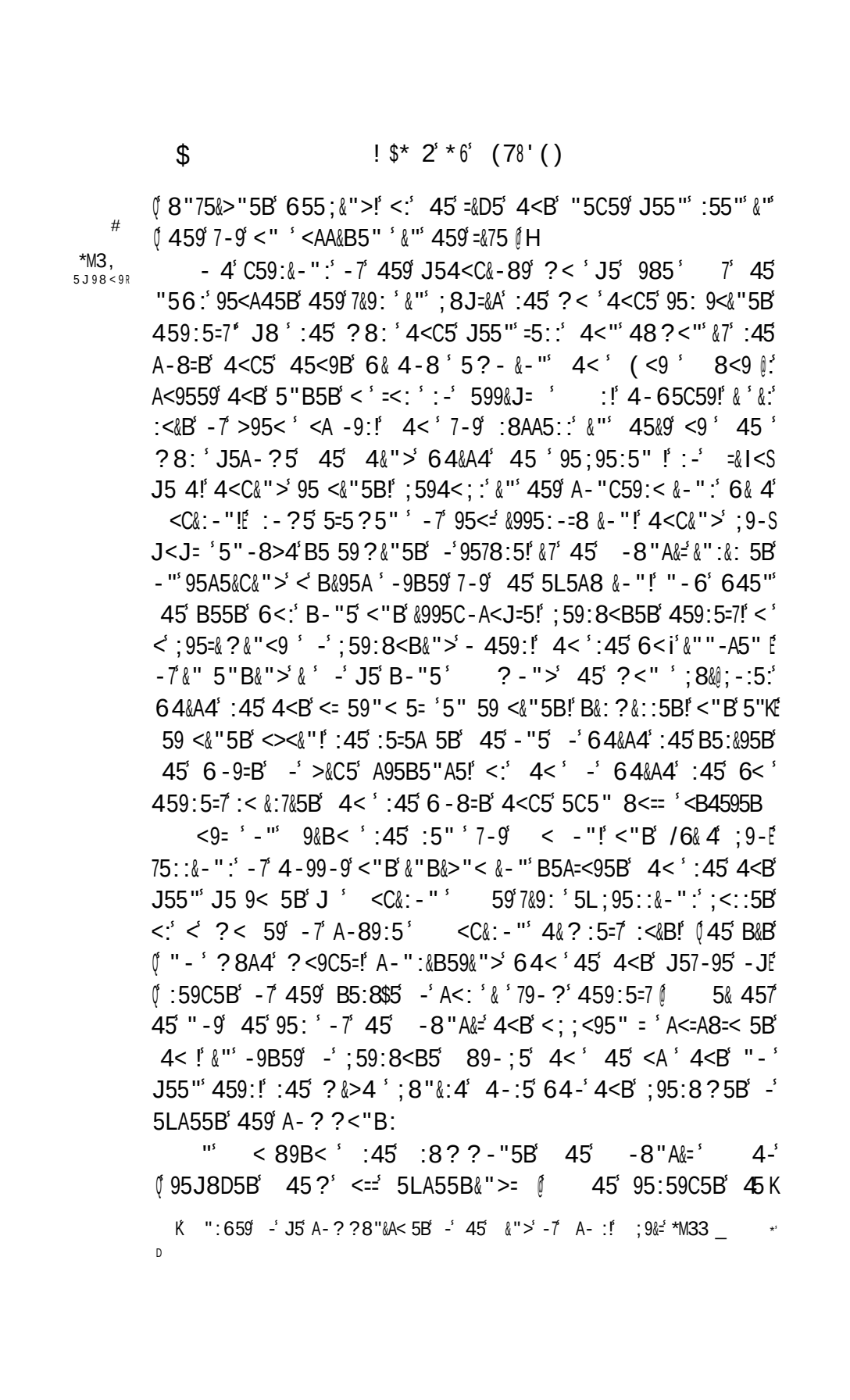
;9&"A&;=5'&:'&"=&595" '&"' 45' A-"B&&-":'-7'=&?& 5B' ?-"<9S
A4 '' &'6<:'=< 5" ' J57-95'&'6<:'<C-65B'' <"B' =&I<J5 4!'
<" &A&;<&">'<6D6<9B= ' 45'<8 4-9&:5B' 45-9 '-7' <'=< 59'
<>5!';59?& 5B' ?5<:895:' -' J5' <D5"' 64&A4' 45' :<75 '
-7' 45' < 5' 95"B5L@5B' "5A5::<9 !' 64&A4'<' 45' :<?5' &?5'
:45'B5A=<95B'=-8B= !'<"B'-7 5"' 6& 4-8'4 ;-A9&: !'"-' -'
J5'459'-6"' 4-:5'64-' ;9-7& 5B'J ':8A4' ?5<:895:!'<"B'
4-:5'64-'6595'&"R895B'J ' 45?!'<=&D5'7-8"B' 45&9'A-"S
C5"&5"A5'&"'=5 &">';<::' 45' 9<":;<95" 'B&:>8&:5' 45'
: ?;<4&:59:' 6& 4' 45' 7-95&>"' 9-5:<" :' :5" ' 45?'
45=;' 64&A4' -4596&:5'6-8=B' 4<C5'J55"' 6& 445=B!'<"B'
<4-=&A' 9&"A5:!'64-?' 45' -;5'6<:' 89>&">' &" -' 6<9'
<><&":' 45&9'6&=!'6595'<J=5' -' :<C5' 45&9'4-"-89'J '
<9&J8&">' 45' <A:' J ' 64&A4' 45 ' :877595B' -' 8"<8S
4-9&:5B';9&C<5';59:-":' -?5 4&">'-7' 4&:'D&"B' -9B'
89>4=5 '8"B-8J 5B= '=--D5B'7-9'-"' 45' ;95:5" ' -AA<S
:&-"' 45' ?<""59!'4-65C59!'&"' 64&A4' =&I<J5 4' :5'
<J-8'5L-"59<&">'459:5=7'6<:'-9&>&"<=!'<"B'65" 'J5 -"B'
64<' 45'4<B'=--D5B'7-9

-8">' <=J-!'><==-;&">'49-8>4' 45'"&>4 !'<99&C5B'J5S
:;< 595B'$6&4' ?8B'<' 955"6&A4'-"' 45' ?-9"&">'64&A4'
7-==-65B' 45'5L5A8&-"' 45'%855"' 6<:' ?-8" &">'459'
4-9:5'<"B'B&B'"-' :55'4&?' 5' A<99&5B' 4&:'B&:;<A4' -'
5A&=!'<"B' 45' -9B' 95<:895&K!'6& 4':-?5"< 89<="59C-8:S
"5::!'B5A&B5B' -'B5=<' 45'A-??8"&A<&-"'7-9'<B<!'<"B'
-'=5<C5'4&:' ?&:95::' -' 45<9' 45'7&9:' "56:'79-?' :-?5'
-459'W8<9 59' "'5C5"':-'?-?5" -8:'A-8=B'"-'J5'D5;'
5A95'79-?' 45' 6-9=B'' J '"--"&'6<:'D"-6"' -C59' 45'
;<=<A5!'J ' 4955' -@A=-AD' 45'J5==:' 6595'9&">&">'&"' -"B-"'
45' %855"'=5<9" '64<'4<B'4<;;5"5B' -"' 95 89"&">'7&E-?'
459'9&B5' '79&5"B' -7' <C&:-"@:' -=B'4&?' 4<'459'A-?S
;-:895'6<:'8"B&: 8&EJ5B H' AA-9B&">' -'459'-6"'<AA-8"!
@:45'75=='&" -' :8A4' B55;'>L&57'-7'?&"B!'<AA-?;<"&5B'6& 4

' ! 8) ! = d !! = ==

K <C&:-"@:':5A-"B':<5?5") ' '$ > ' ;;5"B&L'

*M3, 5J98<9R



B55;5:' B&:;=5<:895'7-9' 89>=&=5 !' 6=&-' AJ"75::5B' -'4<C5' <D5"' 45'=5<B'&"' 45'95:-=8 &-"'' <"B'7-9' <C&:-"!'64-?' :45'<AA8:5B'-7'C&-=< &">'459';-:& &C5'A-??<"B:' 89>4$' =5':45'B&B'"-' C5" 895' -' -8A4!'J8' <C&:-"!'64-:5' &"759&-9'9<"D' ;-&" 5B'4&?' -8' <:' <' :<75' C&A &?!' :45' -9B595B' -' 45' -659

45' -659'&?;=&5B' <"' &?;5"B&">' A4<9>5' -7'4&>4' 95<:-"' -' 9&C' -8"A&=-9'4<B'J55"' A-??& 5B' -' 4<' 599&J=5' ;=<A5'B89&">' 45'64-=5' 8B-9'B "<:' P"B59'<"' =&>4 59'<AA8:<&-"' 45'?&"&:59:!'5C59' -"5' -7'45?!'75=' -"' 45&9'D"55:' J57-95'459'<"B'&?;=-95B'459' -' ;<8:5"' 89>4=5' 5:;5A&<== !' A-"79-" &">' 459' <">59' C&4' 45'7&9?"5::' -7'4&:';9-5:

8' :45'A-??<"B5B' 89>4=5' -8' -7'459';95:5"A5!' 45':-9?'9&:&">'5C59' ?-?5"' =-8B59'<"B'?-95' :49&==' <B"56:'4<B'A-?5'79-?' A-=<"B' 4-8>4' 45' A-:' C-8=B'4<C5' 9&5B'<"B'5L5A8 5B' (<9' 8<9' 45?:5=C5:!' 45&9';9&B5'6<:' -8A45B'<' 45' 4-8>4' -7'459'J5&">';8' -' B5<4'J' 45' ">=&:4' 45';<9' -7' 8" =' <"B' =<8B5' <?&=-"'4<B'>9-6"'6&4'459'B<">59' 9<' <"B' (<&=<"B'6595':-95'<' J5&">' B&:<;;-&" 5B' -7' 45&9'5LS ;5A 5B';5":&-":!'<"B' 45' &">!'64-'4<B'J55"';=<&"> 6&4'J-4':&B5:!'6<:'95<B' -'>-'6&4' 45':9-">5:' -9B' =<8B5' 495<5"5B'&7' 45'%855"'6<:'5L5A8 5B' -' J89"' 56A<:=5!'<"B'4595'6<:'5C5&'<;;5<9<"A5'4<'45' -8=B'D55;'4&:'6-9BH' (' :55'?<59:'=&D5' -'>-'C59' (' 4<9B!@69-5'<"' <>5"' -7' <=:&">4<?@:!'-"' 45'=4'-7' 5J98<9 !' (J-4'6&4'459' (<R5:' <"B'<=' -459:!'&7' 45' (' 5L5A8 &-"'>-'7-96<9B' ';9<' -B'&'A-?5' -' J5 59' (' 5"B' 4<"'<;;5<9:'7-9' 45';95:5" @H

9A4&J<=B' -8>=<:!"-6' <?5:@:'<?J<::<B-9!'64-'4<B' J55"'4&?:5=7'&"'7<C-89' -7' 45' 5L5A8 &-"!'<B?& 5B' 4<

K -69=5' >&=C&5' -' 5&A5:59!'5J' Ò <?5:' 8B:-"' -' <=:&">J<?! KM3,!_ E ' 5J'& '

*M3, 5J98<9

#

*M3,
5J98<9

45 B<">59 6<: 7 '$ 4< 6<9 6<: =&D5= ! <"B 4< 45
%855" 6-8=B 4<9B= 5:A<;5 & (6& 4-8 :-?5 5" 59 <&"$
Q?5" 5 95A-??5"B5B =&I<J5 4! 4-65C59! -B5S
75"B C4< 4<B J55" B-"5 -" ;8J=&A >9-8"B:_ Q:- & (6-8=B J5 ?-95 <J=5 -J5R8: &7&5B! <"B 4<C5>95< 59 <;$
Q;5<9<"A5 -7;9&"A5= B5<=&"> 8J 5978>5 <"B B5"&<=:!
45 4-8>4 ! 6-8=B QJ9&"> 459 95;8 < &-" &" -B-8J 78=$
59?:H :45 A-8=B "- 49-6 45 J=<?5 -" 45 -8"A&-
&" :8A4 <?< 59 6& 4-8 ;8"&:4&"> 45?H 8 <B7& =$
A8= -7 4&:D&"B 6<: "- =&D5= -:-;=&I<J5 4 45
:5" 459 A-8:&" &9 -J59 <95 -B&"J89>4! 6& 4 <
795:4 B5A=<9<&-" 4< 45 &">@: &=5 6<: 8"&?;<&95B!
6& 4 <;9-?&:5 -7 <" &"A95<:5B ;5":&-"! <"B <" <JR5A
<"B&>"-?&"&-8:=5 59 O <95 6<: ?5 < 596&AD J <
;9-4&J& &-" -5" 59 A-=<"B (<9 8<9 4<B J8 75H#
79&5"B: 4595 J8 45 <779-" -7 459 B5< 4 4<B A-"C8=:5B
45 A-8" 9 ! <"B 4<B A<==5B -8 <" 5?-&-"! :4-9 $=&C5B!
J8 7-9 45 ?-?5" :-C&-=5" ! 4< 45 7<&" 5: 5"A-P
9<>59"5" 79-? 4&=&;6-8=B 4<C5 D&"B=5B & &" -7=<?5
45 &">4&?:5=7 &" &?< 5B A-=B= 4< &7 45 %8554
6<:&""-A5" :45 ?8: ;9-C5 & J A4<: &:&"> 45 >8&= R
<"B -8>=<:! 64-5 D"565 45 ;95::895 64&A4 6<: J5&"H
=<&B 8;-" 4&?! :5" :-?5 -"5 -5==5 4&?4< 4-65C5&K

K 9A4&J<=B -8>=<: -5 89>4=5 !
;9&=5 N _ F
K -8>=<: -5 <=:&">4<?! (<9A4

OQ (B5<95: J9-459! -8=B
-B 4< 4-8 D"565: ! 5 7& 5:
"-! 6& 4 64< &"A-?;<9<J=5 >9&57
? ?&"B &: ;59;=5L5B 7-9 4&:
=<?5" <J=5 5C5" 64&A4&: 4<;;5"5B
A-" 9<9 -? ?5<"&">! 64&A4 7-9
4< ? ;5" 95?J=5 4 -? ?5" &-"
-8 :4<=78== 8"B59: <"B J 4&:
? D&":?<" ;9< -8 4< <:
-B! <"B ?<" -459:! A<" 6& "5::
? &"8-A5"A &" 4&: ?< 59! :-5 5KK
6&=5 <=:-5 J5=&5C5 4< ! &7 4<B A-&"$
?<"B5B&! 6-8=B "5C59 B5" & &
<?"-5 :-5 7<& $45<9 5B! 4< 7-9 59$
9-89 :4-8=B 75<9 -B-5 45 4&"H
64&A4&:R8:! "-9:-J<:5 -98""-J=
?&"B5B 5&:8<B5 -89:5=7
7-9 98 4! 4< <: D"-6 4&:&:
4<;;5"5B B5:59C5B=! -&7 4<B&"$$
5"B5B&! 6-8=B "-4<C5 =<&B&
8;-" -459: -?-95 6&=5 &?;85
-? :5=7 4< 64&A4 "5C57
4-8>4 # 8 ? 9&" 5B J <?B5"

45 ?&>4 755 4&?:5=7 &"R895B! 4&: 4-;5: -7 45 ">=&:4! #
:8AA5::&-" =< &" ?<&" <&"&">4&:79&5"B:4&;6& 4 =&I<S
J5 4 9<"A5 6-8=B B- "- 4&">7-9 4&? 9<"A5 6-8=B *M3,
"5C59 6&==&">= :55 A- =<"B <"B ">=<"B 8"& 5B 45 (<9A4
&">7- ;<&" &" 5"B5B 45 :8AA5::&-"7-9 4&?:5=7 (6-8=B J5 ?<B"5::7-9 4&?! 4&">: 48: :<"B&">! -
4<I<9B 45 =-::-7 4<45 6<: A59 <&"-7! <"B B5;5"B
8;-" 8"A59 <&" &5:' 45 4<B :<C5B 4&:4-"-89 J &" 59S
A5B&">7-9 4&: ?- 459 :45 6<: B5<B! <"B 45 A-8=B "-
J9&">459 J<AD -=&75 H

<?5:&"B&C&B8<== 6<: "-&?;=<A<J=5 :45 4<B
J55" 6&==&">J57-954<"B -:5== 4&:A-":5" - 45 5L5A8S
&-"! :- 45 6<: 95<B <7 596<9B: - ?<D5 <J<9><&" 7-9
45 :8;;95::&-" -7 4&: 95:5" ?5" 5 4&" 5B 4<&7
45 %855" 6-8=B ;59:&: &" 459 5LA8:5: - :<C5 4&:
A95B&! <"B 6-8=B :456: 8J: <" &<== 4<:45 C&:45B
-;=5<:5 4&?! 45 6-8=B: &== ;95759 "-7-95&>" <?& -
45&@:H 45" 45 5L;=<&"5B 4&?:5=7 &" B5 <&=! & 6<:
7-8"B 4< 45 6<: 4<"D59&">: &== <7 59 45 5""-L
=<"B:" <"B 45:5 =<"B:! 7-9 45 -=B 95<:-"! =&I<J5 4
<: B5 59?&"5B "- -;<9 C& 4 -8>=<: <BC&:5B 459
-J5 7@55 6& 4 ?-"5 J8 -4&: --:45 6<: 8"<J=5!
645" & A<?5 -45 ;-&" ! -J9&">459:5=7 (59
(<R5: !@ C9-5 <=:&">4<?! ("5>=5A : <= ->5 459 45
(-;;-9 8"& &5: -77595B 7-9 A- =<"B! 6& 4 64&A4 (9
(-8>=<: &: >95< = B&:A-89<>5B @O C-8=B 4<C5 J55"
B&77&A8= 7-9 <?5:! 8"B59 <" A&9A8?: <"A5:! -95:&:
45 ;95::895 64&A4 45 C-&A5 -7 A- =<"B C<: =< &">
P;-" 4&? C<: < -"A5 <=?-: &?;-::&J=5! <"B 45
4<B "- ?- &C5 -?<D5 45 577-9 ! 645" 45 7-8"B 4&?S
:5=7<?8:5B 6& 4 &B=5 6-9B:

K0 5A95 <BC59&:5?5" 7-9 A- S -8>&"<! (<9A4 . _
=<"B! (<9A4 *M3, F / <=:&">4<?- 5&A5: 59! ;9&-
K -69&< >&=C&- - 9A4&J<=B * C-= &&

- 9<"A5 45 %855" 4<B :5" 45 :<?5 B575"A5 -7
459:5=7 64&A4 :45 4<B -77595B - A- =<"B! <"B 45 5775A
6<: 5L<A = 45 :<?5 45 < 4-=&A 5<>85 6<: "< 8S
9<== 789&-8: 45 95"A4 "< &-" 6<: &"B&>"<" ! @ 4< <
@ 4<">?<" :4-8=B 4<C5 -8A45B 45 45<B -7 < %855" -7
@ 9<"A5 @ 45 &">! : &== <"L&-8: - <C-&B < W8<995=!
6<: 95?&"B5B J 5C59 -"5! 4< (<9 8<9 6<: 4&:
:&: 59$&"$=<6! <"B 4< @&7 45 ;<::5B -C59 45 :45BB&">
@ -7 459 J=--B J < J-8995<8! 45 6-8=B J5 <J<"B-"5B
@ -7 -B @H 45 %855"@: 5LA8:5: 6595 =<8>45B -
:A-9" Q & =5 <"B >95< ! --B <"B -8">! <"B -7 <=
@ 95=&>&-": :8"> 45 :<?5 : -">"@ "5C59 6<: :55" &" <9&:
:8A4 8"<"&?& -7 5?- &-" H ;95<A459 : ;-D5 -7 45
5L5A8 &-" &" < :59?-"! &" 45 489A4 -7 8: <A45f
5 9-8:5B :8A4 < 5?;5: -7 ;<::&-" 4< "- <"-459K
6-9B 4< 45 8 595B A-8=B J5 45<9B 45 -9< -9 <"B
4&: <8B&5"A5 J95<D&"> B-6" ->5 459! <"B ?5= &"> &" -
< A-??8"& -7 5<9: 5A95 <9 98=<9 :<&B 4< 45
6-8=B "5C59 :& < -8"A&= <><&"! &7 45 &":8= - 9<"A5
6<: 8"<C5">5B! <"B 5=&5C&5! 65==$B&:;-:5B - ">=<"B
<: 45 6<:! 5"W8&95B :A-9"78== &7 45 %855" :8;;-:5f
;9&"A5:@ 45<B: - J5 &5B -" 45&9 :4-8=B59: J :4-5
9&J<"B: O &9 B6<9B <77-9B <" &A&;< 5B <" &?? 5
B&< 5 B5A=<9< &-" -7 6<9 - 79&>4 5"5B 6<: 45 < 45
5L4&J& &-" -7 755=&">! 4< 45 B5:;<&95B -7 =&I<J5 4@: :8&K
C&C&"> 45 : -9? <"B! 4-8>4 95:59C&"> 4&: <==5>&<"A5 -
459 64&=5 :45 =&C5B! 5 ! 49-8>4 (5"B-I<! 45 J5><" -
;< 4&: A-89 - 4&=&; <: 4&: <;;9-<A4&"> :-C595&>" H
(< 59: 6595 "- &?;9-C5B J 45 ;-:& &-" -7
45 95"A4 ?J<::<B-9 &" ">=<"B 4<: 5<8"587

K <B5 - <=:&">4<?! (<9A4 .F$;9&= I _ K <77-9B - 89>4=5 ! (<9A4 M$ *M _

O (5"B-I< - 4&=&;! 5J (<9A4 2 _ ! & C-= C (5"B-I< - 4&=&;! 5J * * _ :!) C- #

:5A95 <& ' 6<:' &"' 45' -659!' 45' 6<:'04&?:5=7' A4<9>5B' 2 #
k 6&4<"'&?<>&"<9 ' A9&?5!' <"B' 4&:' 95< ?5" ' 6<:' <' :5;<S
9< 5' A<8:5' -7' B&:;=5<:8&5' 45' %855"!' J ' <=:&">$' *M3,
4<?@:' <BC&A5!' :5" '7-9' 4&?!' <"B' ?<B5' 4&?' :-?5' D&"B' -7' (<9A4
=<?5' <;-=-> !' 64&=5' :45' ;9-A55B5B' -' ;9-C5' -' 45'
C-9=B459'&""-A5"A5'-7' 45' -459&"><' 9<>5B !' Q' 59'
Q (<R5: !@ :<&B' <=:&">4<?' Q B-4' 64-==' J5"B' 459$'
Q :5=7' -' B5C&:5' 789 459' ?5<":' -' B&:>9<A5' 459' ;--9'
Q -8"A&=' 4<' :8J:A9&J5B!' <"B' &"' 95:;5A' 4595-7' :45'
Q "5>=5A :' <=' -459' A<8:5:@H "' 8":&>"5B' =5 59' -'
5&A5: 59' &?;=&5:' 4<' :45' 4<B' J55"' 4<9B=' ;95C5" 5B'
J' -9B' <96&AD' 79-?' B&:?&::&">' <=' 459' <J&"5 !' <"B'
<B-;&">':-?5' B<">59-8:' A4<">5' -7';-=&A H' 89>4=5'
A-" &"85B' &"' 45' B55;5:' B&:>9<A5!' 7-9J&BB5"' 459' ;95S
:5"A5' 7-9' 6-' ?-" 4:!' <"B' 5L;5A &">' "5C59' -' 95 89"'
-'&'O<"B' 645"' 45' 6<:' 95=5<:5B' <' =<:!' <"B' 95:8?5B'
4&:' ;=<A5' &"' 45' -8"A&=!' :45' <=- C5B' 459:5=7' -' <BB95::'
45' "-J=5:' -7' <=' 459' :8JR5A :'&"'=<">8<>5' 64&A4' 6-8=B'
4<C5' J55"' &"B5A5"' -6<9B:' 45' 6-9:' 75=-"' &"' 56S
>< 5H -' 5<>59' 6<:' :45' 4<' 459' :-9' :4-8=B' J5'
J5=&5C5B!' 4<' "-4&">':-' ?8A4' ;=5<:5B' 459' <:' <"' &"B&A<S
&-"' 4<' A95B&' 6<:' < <A45B' -' &'O<"B!' <:' (<9

*E <=:&">J<?' -' 5&A5:59!' ;9&=' G E -' ?<"' B< :' ;<::5B!' 459
8L $ 2 'C-=' && (<R5: ' 5" 595B' &" -' ?<9C5==-8:'
K E 98=!' ?' -9B"' -89' J9-459' 0A985=:;55A45:'6&4' 45' -9B' 95<S
4< 4'?59& 5B'&"' 4&:'5 59"<=' ?5?-9' :8959!' ABP&">' 4&?' 9<& -9!' 7<=:5' B&:S
<"B'-J=&>< &-"!'J5&">' 45' -"=' ?5<":' :5?J=59!' <"B' 6&AD5B' 695 A4!' A-?S
79-?' -B' -' W8<=&7' 45' %855"@:' ?<"B&">'4&?' -'<C-&B' 459';95:5"A5!'
J& 59'48?-89!' <"B' -':<' 45'98&"S <"B'<==<J-8' 45'B5< 4-7' 45' A-S
-8:' A-89:5 ;9-C-D5B' <' 4-?5' <"B' &:4' %855"@$$$$$$$$$' 6 '2%
<J9-<B!' 64&A4' =&D56&:5' A-"A59"5B' 8"5!'&$&&' '$ %
459' (<R5: @:' <8 4-9& ' <"B' A95B&' K E' 45' ;<9'-7' -89' =5 59'64595'
5<9!'<"B' 45'<=&5"<&-"'-7' 45'>95< 5:' -8' :<' 45' &">'-7' A-:' 5LA8:5:
?5?J59:'-7' 45' -89'<"B' 45'95<=?@ 0 459' 45'J=<?5'-7' 45'=< 5@5L5A8&-"!'
$$$$$$$$$') '(<9A4'.>$;9&= <"B'=<R:' 45':<?5'8;-"'459' -8"A&=!'
3' '$ % B&B'6-"B5978=='A-" 5"'459'(<R5: !'
O 89>4=5' -' <=:&">4<?!' ;9&=' 64-' B5:&95:' "-4&">' ?-95' 4<"' -'
.$.. _ ' 4<C5' &' >5"59<==' A-"A5&C5B' 4<

8<9 4<B ;=< 5B 459 ;<&@ 6& 4 :- ?8A4 5775A o - 459&"><
!
:- =&I<J5 4 -?& 5B "- 4&"> - >&C5 A-?;=5 5"5:: - 459: "B&>"< &-"
6<: "- :877&A&5" 64&=5 & 6<: A-"7&"5B - 6-9B: <"B ?<""59 -?5
C&A &?6<: "5A5::<9 ! C4-:5 ;8"&:4?5" :4-8=B J5 5C&S
B5"A5 -7 - 459:@ >8&= <"B 459 -6"5<9"5: "5:: 45
:5" 7-9 45 R8B>5:! <"B 5"W8&95B Q4-6 7<9 45 =<6
Q 6-8=B -8A4 <C&:-"@ ?5<"&"> 4< 45 :4-8=B 45
A4<9>5B 6& 4 95<:-" 45 R8B>5: <":6595B 4< :&"A5
459 (<R5: 4<B :&>"5B 45 6<99<" ! 4&: -775"A5 B&B "-
95<A4! J5 -"B ?&:A-"A5; &-" -9 A-" 5?; &5 ?&>4 45
;8"&:45B 6& 4 7&"5 <"B &?;9&:-"?5" ! J8 "- 4&"> 789S
459 H 45 45" ?5B& < 5B >&C&"> 4&?8; - 45 A- :
J8 & 6<:K 75= 4< Q A985= 6-8=B 7-==-6!@ <"B 4<
- ;8 4&?- B5< 4 Q 6-8=B J5 >5"59<== &<J4-995B @H
&5 ?&>4 ;-::&J= 4<C5 5:A<;5B <= ->5 459 &7 45
6-8=B 4<C5 <AA5; 5B 45 J=<?5 64&A4 :45 6<: A<: &"> 8;-" 4&?! J8 ! 5& 459 : 8"> J 459 &"R8: &A5 -9 <79<&B -
;8 4&?:5=7 &" 459 ;-659! 45 A=8"> - 4&: -6" : -9
<"B 645" 45 6<: 5L<?&"5B &" 45 -659!! 45 ;59:&: 5B
&" B5:A9&J&"> =& 59<== 5C59 4&"> 64&A4 45 %855" 4<B
:<&B - 4&? 5 @<;;5<=5B - -B <"BK 459 (<R5: @O
@ A-":A&5"A5 7-9 45 D"-6=5B>5 -7 45 98 4! <"B J "-
@ ?5<": A-8=B J5 J9-8>4 - A-"75::5& 459 7<8= -9 A9&?-
@ 4< 45 6<: A4<9>5B 6& 4 @O

57&5B 48:! :45 6<: A-?;5==5B - ;9-:5A8 5 4&?! -
<J<"B-" <= ->5 459 459 -6" B575"A5 45 <;;-&" 5B <
-??&::&-" - & 4&?! A-":&: &"> -7 45 6- 9A4S
J&:4-;:! 45 4&57 8: &A5:! 45 4&57 <9-"! 45 (<: 59

:45 4<B =5<: ;<&@ &" 45 <A &-"@_ 9A4&J<=B -8><:! ;9&= *M3, $H
6 . %%' ; 9&= **$.*
K <"B-=;4 - <=:&">4<?! (<9A4
@ <(">4<? - <77-9B! (<9A4 **$.*_ (D %A && -&
N$*N _ +
K -5 -7 <A-"C59:<&-" $:C&4

-7 45 -==:! &9 <= 59 (&=B?< ! &9 <?5:' &E-7 :!<"B = #
7&C5 ;55&@:! -&&B 8?=5 ! 45 <9=:' -7 8?J59=<"B!' -9S *M3,
A5: 59! <"R &"A-="!<"B -9B 9<' ' 7 45:5 8?=5 ' (<9A4
<"B -9A5: 59 4<B J55"' &"' 5C59 ' <4-=&A -":;&9<A '
:&"A5 45 J5>&""&">' -7 45 95&>"' 8?J59=<"B 6<:'&"' <=S
=<9B@:' =&: !<"B 9-7 :!<' ;5":&-"59 -7 4&=&;' & 4'<'
-89':-'A-?;-:5B 45 6<:'A-"B5?"5B J57-95 45 6<:' 9&5B
5 6<:' A4<9>5B 6& 4' 4<C&">' J9-D5"' 45 %855"@:' &"S
R8"A &-":' &"' :456&">' 45 6<99<"' -' 89>4=5 !<"B
HC45" 89>4=5 '<:D5B 4&?'&7':45 ?5<"'&' -' J5 5L5A8 5B!
k 6&4 4<C&">' 95;=&5B 4<':45 B&B' 57-95 <;8J=&A 9&S
J8"<= 45 6<:' ?-95 95:59C5B 4<"'&"' 4&:' ;9&C< 5 B5A=<&$<$
&-"' 45 -9"5 $ 5"59<= 9;"&"B5B 4&?'-7 <"' 5LS
;95::&-"' -7 45 %855"@:! 4<':45=4<B B5:&95B :-?5 - 459
-89:5 -' J5 ;89:85B' 5 ?&>4' 4<C5 <D5"' <599&J=5
75C5">5 8;-"' 459 &7 45 4<B 5L;=<&"5B 45 ?5<"&">' -7
45:5 6-9B:' 8' 64<' 45 -=B -' 45 L@&C ' -8"A&=
J5 A-"A5<=5B 79-?' 45 6-9=B' -' 45 -89' 45 :<&B
4<' 45 4<B 95A5&C5B "-' ;-:& &C5 B?5A &-":' &5 4<B
HA 5B <:' 45 --JA5&C5B 7-9 45 J5:' &"' 45 &" 595: :' -7 4&:'
7&=&: 95::' <"B =&5 95<=?

45 -??&::&-"59:! &"' &>"-9<"A5 -7 4<=7 45 7<A :!
<C5 45&9R8B>?5"' -"5 J' -"5' <C&:-"' 6<:' <AW8& 5B!
J' 8"&C59:<= A-":5"! -7 5C&=&" 5" &-"! J8' A5":895B
7-9 "5>=5A' <"B É;95A&;& <"A' &9 <= 59 (&=B?< !
:;5<D&">' 7&9: E!' <::5::5B 4&:' 7&"5' <' 5"$ 4-8:<"B ?<9D:!
H& 4'&?;9&:-"?5"' <' 45 %855"@:' ;=5<:895' 45 4&57
RR<9-"' B956' <B&: &"A &-"' J5 655"' R8: "5::' <"B' R8: &A5'
45 4&">' B-"5! 45 :<&B! 6<:' >--B! 45 ?<""59 5C&='
"' :;55A45:' -7 45 6-' 9A4J&:4-;:! -9B 8?=5 '
<"B -9B 9< ! 6595' ?-95 ;<9 &A8=<9 <"B "-&A5<J=5
<"B :! 45 9A4J&:4-;' -7 -9D! -"A5 <7&59' 89& <"!
(94-' 4<B B9<HC"' 4&:' B<>>59 &"' 45 5"< 5$4-8:5' <' <?S
J9&B>5! J8' "-6' <?5B &" -' :A-;4<"A ! <"B >9< 578=

N? j-9 4&:95:A85!79-?45 &""D5E5;59<-"A<:59!Q7-"B=
! <"B &H775A 5B=A-??<"B5B 45 9<95<775A &-"45 J-95
$ -(9$ <C&:-"'@ Q 45K 5L -==5B 4&:4-"5: !$?:B-?!
E <"B 95=&>&-"!<J-C5 ?5<:895 4595 $6<:!@ 45:<&B!
<:8;5<J8"B<"C&9 85-7 95=&>&-"&"4&?'@ Q 5 45
A-"A=8B5B 4<"5& 459 4-"5:"-9 6&:5Q?<"&"45
6-&@=B 6-8=B 4<C5 B-"5<:45 B&B @
"?=` !64-4<B B5:59C5B 4<=7$<$B-I5"&?5:-=-:
4&: 6" 45<B! 5 !D"56 4<&"$45 %85`"@: ;95:5"
48?-89 45 ?&>4:456 4&:A-=-89: 6& 4:<75 5
B5:A9&J5B 45 ?&"&: 59:!64-4<B :&>"5BE 45 A-??&::&-"
7-9 45 5L5A8 &-"!<: <"5:-7 A-":;&9<-9: "4`
7<A5 -7 45 C59B&A !64&A4 45 4<B 4&?:5=7>&C5" 8;-"!
459 9&<=! 45:;-D5 -7 45 A- A4 %855" Q<: -"`-7 45
>95<5: 9&"A5: &" 89-;5! 64-4<B J55" 8"B8=
<"B ;95:8?;8-8:=;9-A55B5B <>&": @ 5 -JR5A 5B
-4z`7&"5 d: <= ->5 459 B&:;9-;-9&-"5B -45 -775"A5!
<"B 45:<&B! Q 4< Q&7 <C&:-" 4<B J55"E4&:-6" J9- 459
<"B 45&9H 45 A-8=B"-B5C&:5 --:4<9;<A;"B5?"<&-"
<><&":4&? @@ E K
4& >&7 !8"5"A8?J595B 6& 4 45-9 _ H7-9 45:<&" 4E
"5::-7 (<9 8<@@ K6<:"-5 <":=&5B -8?=5 4<" <BE
B95::5B 4&?:5=7 -45 A<:5 J57-95 45 -89 5 -=B
K 45: -&-7 45 %855" -7 A-:!<: "-H/?&>4 4<#H
-=B &! Q?<D&">< :;8"B 95;-9 -7 459 6&AD5B"5:: 459 =&75! 4`E:<&B! 4<B 5C59 J55" E]"W8&5 <"B 9-8J=5E
:?5 -45 64-=5 6-9=B* 459 5L5A8 &-" 45 A-":&B595B B85 <"B R8:!65=; ;9-:5A8 5B <"B <775A 5B! 4<;; 79K
45 95<=?!:<75 7-9 459 (<R5:!<"B >9&5C-8: -"-8H
4<6595 <" 6< B8 &78== B&:;-:5B 45 6&:45B
<C&:-" <AA-9B&">= -J5 7<C-895B <"B 95:;5A 5B
&"A-":&:5" 6& 4 4&:d9>8?5"!45 <AW8&5:A5B &" (&=BE
?<@::5" 5"A5

-6" ;89&7&A< &-" 45 4<B A-"C&"A5B 459:5=7 -7 459 &"""-A5 &A5 J 45 C&-=5"A5 -7 459 <::59 &-" -7 & 45 7&"5 6<: 5L<A 5B - 45 =<: ;5"" <C&:-" 6<: B&:S ?&::5B 79-? 45 ;8J=&A :59C&A5" 4&: 7<?&= 6<: 98&"5B! <"B 4&?:5=7 95?<&"5B < ;9&:-"59 < 4&: ?&: 95::@: ;=5<:895

45 ><&"5B"-4&">J 45 ;9-:5A8 &-" - -"5 <" 45 ?-95 J5=&5C5B 45&@! <"B 459 ;9-A55B&">: A95< 5B -"= <?8:5B A-" 5?; 45 4<B < J5 59 ;9-5A &-" &" 45 ?-95 :59&-8: A<8:5: 64&A4 ;95C5" 5B 45 <">59 -7 9<"A5 <"B@ A-=<"B 79-? <D&"> :4<;5 &" ?-95 4<" 6-9B: 45 B5<B=5"?& J5 655" 5"9   <"B 45 4-8:5 -7 8&:5 < -"A5 95A-"A&=5B 45 &"> ;9&C< 5= - 4&5 :&: 59$&"$=<6@: 7< 5! <"B ?<B5 =&I<J5 4@: <==&<"A5 < ;-=&$! &A<= "5A5::& - 4&: -C59"?5" 45 ;95 5":&-": -7 4&=&; - 45 H-H " -7 ">=<"B A-?;5==5B 98=<9 <"B #&==59- - B&>5: 45&9 :;=55" <"B =&?& 45&9 95C5">5 - :<9A<:?H 45 6<9 ;<9 &" A-=<"B 6595 ;<9<S =:5B J 45 :<?5 A<8:5! <"B! A<9&">?-95 7-9 45 ">S =&:4 :8AA5::&-" 4<" 45 95: -9< &-" -7 45 7<& 4! <"B :55&"> 4< <W8<995= 6& 4 ">=<"B! 64< 5C59 ?&>4 J5 45 - 459 95:8= : -7 &! 6-8=B J9&"> 45?" -" "5<959 - 45 >95< -JR5A -7 45&9 <?J& &-"! 45 -- :8J?& 5B - 5"B895 64< 6<: "-6 ;<: 95?5B

"5 :<&:7<A &-" -"= 45 A-8=B "- J5 B5;9&C5B -7 45 45=B =&I<J5 4 7<: &" 45 B&=5??<&" 64&A4 :45

) %" ((" " /" * " " " (* A " ' ?" (*" " " " / * "%" 4" 4 * @ (* /! " " " A (" ";/" @ ! " " " %" " 2*"" * "(* * * * " " " " 4" @ 4" /" * " " (" (" " " /" %" % " " (* " " (" 2*"" @ " / * (" "%" 4" (* /"" "%" @ * " 3" " +C / B " 4" "%" (" " " "

4<B' ;=<A5B' 459:5=7!' <"B' 45 ' ;8"&:45B' 459' 6& 4' <"' &"S #
>5"8& ' -7' -9 895' 5=&5C&">!' <7 59' 45'9578:<=' -'<B?&'
<95 ' &" -' A- =<"B!' 4<' <?5:' 6<:' -"' 45' ;-&" ' -7' *M3,
<== &">' 4&?:5=7' 6& 4' 4&=&;' <><&":' 459!':45' :5" ' B-6"' !"
4&:' 7< 459' -9B' 8":B-"' -' 95& 5&@< 5' 45' B5A=<9< &-":'
-7' 459' =5 59' <9-B &">'64<' :45' 4<B' :<&B' &"' ;<:'
&?5:' -' 4&:' ?- 459!' <?5:'95;=&5B' 4<' 45' 6-8=B' C&=$
&">=' J5=&5C5' 459!' 48' 45' ?8:' 7&9:' @4<C5'<' 9&<=' -7' 459'
@&""-A5"A ' 45' 6-8=B' "-' A-"B5?"' 459' 8"45<9B!' J8'
@45' A-8=B' B-' "-' =5:' 4<"' :8:;5"B' 4&:' R8B>?5"' 79-?'
HA=5<":&">' -9' A-"B5?"&">' &==' 789 459' 9&<=' 7-9' ;9--7:'
@ 4<' :45' 4<B' 5' >&C5"' -7' 459'&""-A5"A' 45' 95?& 5B' -'
@459' -6"' R8B>?5" !' 645 459' :45' 4<B' 5' :<&:7&5B' 45'
@6-9=B' -' 459'4-"-89'&"' 4<' ?< 59' -9' "-'H' &7' <C&:-"'
@6<:' 95<==' >8&= !' <' :5A-"B<9' ;8"&:4?5"' 6<:'&"<B5$
@W8< 5' -' 4&:' -775"A5@

45' 5:8& :'-"' 45' -659'9<AD' :A<9A5=' :877595B' ?-95'
<A8 5=' 4<"' =&I<J5 4' <' 95A5&C&">' :8A4' =<">8<>5' <:'
4&:' 79-?' <?5:' 45' B&A<5B' <":659' <7 59' <":659'
45' 5" &@5<5B!' :45' 495<5"5B!' :45' 5L;-:8=<5B' -S
4&">' :<&:7&5B'459' 45' 4<B' B&:A=<&?5B' 45' -9B59'7-9'
45' 5:&5A8&-"' 459:5=7' 45' A-:' <&@>85B' &995:&:&J='
4<'&7'&' 4<B' "-' J55"' B-"5' J' 459' -9B59!' 45"'&' 4<B'
J55"' B-"5' J' ;9&C< 5' ;59:-":!' <"B'7-9' ;9&C< 5' ;59:-":' -'
;8' <' %855"' -' B5< 4!' 6<:' 45' ?-:' 4-99&J=5' D&"B' -7'
95<:-"

45' 6<:' :-' 6-99&5B!' :-' &99&<5B!' :-' ><==5B!' 4<' <'
7&9:' :45' 6<:' 4<=7' B9&C5"' &" -' &5=B&">' 45' J<B5'
8":B-"' :<' 4<' <=4-8>4' 45' &">' -7' A-:' 6-8=B' J5'
P"6&:5' -' B5?<"B'&!' @ 5!' &7' 459' :&"A59&' ?&>4' J5'
@45' ?-95' ?<"&75:5B' J' :5"B&">' 459' 5A95<9' -' 4&?!'
@:45' 6-8=B' "-' :&AD' -' B-' :-@H

&' @"' ' "# ' ' ' ' 1'" ' ' "' '<* '
' * ' ' ' *0D '+E--! / 'F+E--!= '
!44' 43*$8'()

8 & #

*M3, !"

" :5A-"B 4-8>4 : :45 :=&>4 = : 4&7 5B 459 "- 5 Q : - :5"B&"> 459 5A95 <9 !@ :45 :<&B!E Q :45 A-8=B J5 A-"$ 5" - &5=B :- 7<9 4595&" <: R"&>4 J5 J <" 7-9? -7 R8: &A5! <"B 6& 4 B&:A4<9>5 -7 459 A-" :A&5"A5 95W8& 5B < 459 4<"B @ J8 45" <><&"! 459 ;9&B5 J-&=&"> -C59! :45 <BB5B! 4< :45 7-8"B J 45 &">@: <9 &A=5: < B&:;-:& &-" - :8:;5"B 4&: &" 5==&>5"A5 8" &= 45 ?&>4 J5 J5 59 :< &:7&5B -7 459 &" "-A5"A 6 4595&" 45 8:5B 6-9B: -7 9&<= <"B A=5<":&">! <: 4-8>4 & 6595 B5A&:&-" -7 <A<8:5 =& &>&-8: J57-95 4&? <: <R8B>5 645958;-" :45 ?&>4 >< 459 :-?5 <J:89B :5":5: 8"?55 - J5 <;$;=&5B - 459! J5&"> < %855" <"B < 9&"A5 -C595&>" <" :659<J=5 - "-"5 7-9 459 <A &-":! - 4596&:5 4<" <: :45 6<: B&:;-:5B -7 459 -6" 7955 6 &== J8 - =?&>4 -B <=-"5 @ H

45:5 6595 45 C59 6-9B: 64&A4 4<B J55" 8:5B J (<9 8<9 < 45 &?5 -7 45 -9D 5"W8&9 <"B =&I<J5 4 4<B 459:5=7 B&:<==-65B 45?

5:;59< 5 < =<: ! 4-8>4 : &P A=&">&"> - 459 ;-:& &-"! :45 95;=&5B 95:-=8 5= ! 4< 45 &"> ?8: J5 :< &:7&5B 6& 4 459 6-9B 45 6-8=B "- :5"B 459 5A95 <9 - 4&?! "-9 6-8=B :45 :< <" 8" 98 4 &" < ?< 59 64595! &7 :45 4<B A-":5" 5B! :45 ?&>4 <C-6 <"B B575"B 459 A-"B8A J 45 =<6: -7 -B <"B ?<" H

45 %855" -7 A- : 4<B ;=< 5B 459 A=-:&"> ;<9 - 45 <B?&9< &-" -7 ?<"D&"B =&I<J5 4 4<B B-"5 459 J5: - ?<D5 <>--B A<8:5 &" - < J<B -"5 45 4<B 7=8"> < B-8J -C59 45 R8: &A5 -7 <" 5L5A8 &-"! 64&A4! &7 :45 4<B <A 5B -;5"= <"B 4-"-89<J= ! 6-8=B "5C59 4<C5 5L&: 5B 45 4<B A98:45B <" &""-A5" 5A95 <9 64-:5 7<8= 4<B J55" -- 7<& 478= :59C&A5! <"B -" 459:5=7 :45 4<B J9-8>4 9&B&A8=5 <"B B&:A95B&

& " @" <* 0 ! !" " > " @" 5 / != / G=

45 5775A -7 (<9 8<9 @:B5< 4-" ">=&:4;<9 &5:! #
<"B-" 45 ;-=&A -7 45 <4-=&A -659:!H &: ?-95 &?S *M3,
;-9 <" <"B ?-95 &" 595: &"> ;9&=

45 ;598:<= -7 45 &" 59A5; 5B A-995:;-"B5"A5 4<B
<7 59 <== 49-6" "-B5A&B5B =&>4 -" 45 &" 5" &-":-7
4&=&; 4<B:456" 45 5:8&:<"B 45 9578>55:5"S
B5<C-89&">;9&C<5= -9><"&:5 <A98:<B5 4<B
:456" 45 &">-7 ;<&" -J5 95<B -:9&D5<:8BB5"
J=-6 &7 =&I<J5 4A-8=B 7&9: J5 D&==5B_J8:&==<79<&B
-7 9<"A5_:49&"D&">7&@-?-;5" 6<9_<"B 95:-=8 5<
<== 5C5":"-" -8"B59 <D5<A-:=5" 59;9&:5 6&4-8
<" <::89<"A5-7< <4-=&A:8AA5::-9 -7-==-6 45 %855"
-7 A-: 45 -;5 4<B &"C& 5B 4&4;-5L5A8 5 45
B5A955:-7 45 489A4 45 4<B A-":5" 5B!;9-C&B5B 45
-;5 6-8=B ;<4<=7 45 5L;5":5:!<"B 6-8=B =5<C5 -
4&?45 ;-4 &A<=95:8=:-7 45 A-"W85: 7-9?<=&"S
C<:&-" -7 ">=<"B -" <>95<:A<=5 95W8&95B 5=<J-9< 5
;95;<9<&-":" <"B <=4-8>4 7-9 6- 5<9:45 4<B J55"
A-==5A &">:4&;:<"B :-95:! 45 B&B "-?5<" -A-??&
4&?:5=7 &== 45 :<6 4&: 6<A=5<9= -" J-4 45:5;-&" :
45 -;5 6<: 5"<A&-8:-7 ?-"5 ":<"<" <=&<" 9&"A5
45 6:R5<=-8:-7 ;<"&:4;-659 <"B 95=8A <" -&"S
A95<:5 &'' 45 4<B ;9-75::5B 4&?:5=7>5"59<== 6&==&">-
<>955 -64< 5C59 4&=&; 6&:45B! J8 &" B5 <&= 45 4<B
?<B5 B&77&A8= &5:<J-8 5C59 4&">' 45 6<:8"6&==&">-
<J<"B-" <?5: 6& 4-8 789 459 577-9 :7-9 4&:A-"C59S
:&-" ' <"B 45 :8J:&B 64&A4 45 4<B 4&?:5=7 ;9-;-:5B
75== &??5<:89<J= :4-9 -7 4&=&;@:5L;5A < &-":

48:! (45 5" 59;9&:5!@ <: & 6<: A<==5B! 6<: : &==
4<">&">-" :8:;5":5 45 &" 597595"A5! -7 =&I<J5 =& &"
45 -6 -8" 9&5:! <"B 45 :<AD -7 <9 4<>5"< <"B
-?&">-! 6595 A-":&B595B < -?5 -J5 ;9-C-A< &-":
-7 :8A4 ?<>"& 8B5! 4< & 6<: :8;;-:5B 4&=&; 6-8=B
"-6! 645 459 45 =&D5B & -9 "-! J5 7-9A5B &" - 6<9 -"

#

*M3,
;9&=

(: -6" <AA-8" =&C<95I 95;95:5" 5B! <"B (=&; 95& 59< 5B! 4< 45:5 6595 ?< 59: 5<:&= A-?;-8"B5B ">=<"B -77595B ;5<A5! <"B! 5LA5; 7-9 45 489A4@: W8<995=! 45 ;<"&<9B: B5:&95B ;5<A5 45?:5=C5: 45 -;5 6<: ;-=& 5= &"A95B8=-8: @ 5C5">5!@ =&C<95I :<&B! @ 6<: -: 8A4 < ?&"B <: 4< -7 5L 8:! 45 7&9: @ =<6 -7 5L&: 5"A5!@ <"B 45 A-8=B "- J5=&5C5 4&=&; :59&-8: H 4&=5 45 <B?& 5B 4< & 6<:95<:-"<J=5 4< 45 :4-8=B A-" 9&J8 5 :-?5 ("> 6& 4 45 ;9-:;5A -7 95A-C59&"> 45 ">=&:4 95C5"85:! 45 ;=5<B5B ;-C59 5 : &=: =&?& 5B 4&: -7759: -: :5C5"" 48"B95B 4-8:<"B A9-6":! <"B 5C5"" 4&: :?<=: :8?' -"= -' J5 ;<&B J &"S : <=?5" :" 4<=7 < ?&==&-"" -"" 45 =<"B&">-7 < ;<"&:4 <9? &"" ">=<"B! -9 45 <99&C<=: -7 45 9?<B< 4595! <"B 45 95: :&L ?-" 4:<7 59" -9! 45 4<=7 ?&==&-"" < -"A5! &7 (=&; 6-8=B ;9-?&:5 4< & :4-8=B J5 95;<&B &7 "- 9?<B< :<&=5B

5L 8: 6<: J5=&5C5B -' 4<C5 ?-95 ?-"5 &"" (: 95<S :89 4<"" <" 9&"A5 &"" 89-;5 4&=&; 5" &95= B5S A=&"5B -' J5 :< &:7&5B &5 -8>4 ! 45 :<&B! -' 4<C5 < ?&==&-"" <"B < 4<=7 <"B < ?&==&-"" 6<: 45 =5<: 64&A4 45 6-8=B <AA5; 5 B&B "-=&D5 45 A-"B& &-"" -7 95;< S ?5" ! -9 45 : &;8=< &-"" 7-9 45 <99&C<=: -7 45 7=55 6<: ;-::&J=5 4< E 45 6-9D ?&>4 J5 B-"5 J <9?<

K =&C<95I 69& 5: @ 5 95B8L`9-"! A-?-' # (<>H C59Y! Y A-"75:<9=-! <8"W85 "-' Y A9559=-' 5"" "&">8"< ?<"59<!; -9 =< C5"59<A&Z"" 5"" W85 <AY 5:' C5"&B< =< C5"><"I<0< 8!L' 9 '8 8832 N 5 &5?J95! *M32 4&=&;' <": 659: 4< & &: "-' 6< &"A8?J5" -"" 4&?' -' 8"B59 <D5 45 5" 59;9&:5! @ ;85: <8"W85 A-?-' B5A5&: 5"><"" <==Y ;-9 <"" ==<"< <:: 5" <B< =< =5 B5 C5"><"I<! <?J&`"" :-"" <"" B&:$ A899&B-95: 5"" =<: A-"C5"&5"A&<: B< 5: <B-' W85 "-' ;85B5"" B5L<9 B5 A-"-A59 W85 A-"" 4<A59?5 5[-9 B5 =< (59 <?<9 B5 ?<"59< W85 :5=&?S ;&5"" <:5>895"" =<: 7=- <: B5 =<: "B&<:;85B-' -' 5LA8:<9 5=?5 59?5 5"" 5?;95: <" B&7&A8=-:<W85B<"B-' :5>89-' >8<9B<B-' ;<9< "-' ;-B59 :59 -75"B&B-" W85 5: C59B<B! W85 :& B5:5-' 5?;95"B59=5 A-"" < 8B< A-?S ;5 5" 5 "& 5: ;-9 - 9< 7859I< "& 7&"" ?<: B5 =< W85 ?5 4<A5 <=<: &?< B5 C59 =<;59:5A8A&Z"" W85 <==X ;<B5A5 =< >=5:&<!@ \A _ 8 2 '8 P *()) 8!L' 9 *3 -C&5?J95! =44 4!I . '(3'

<=-"5! <"B 4<' "-' 7=55' ?&>4' J5 "55B5B! <"B 5L 8:! 45 D"56' 65==! 6-8=B 4-=B 4&?' -' 45 =5 59 -7 4&:' J<9$ ><?j 45 -;5! 45 :<&B! ?8:' ?<D5 8;' 45 78==' ?&=&-" <"B =5' 4&?' 4<C5 &' 8"A-"B& &-"<== " 45 6-8=B 45"' !A!-?;=5 5 4&:' ;95;<9< &-":! <"B >-' -' 6-9D <:' :--"' <:' ;-::&J=5' J8' 45 ;<9 &A8=<9=' B5:&95B 4<' 45 5L;5B& &-"' :4-8=B "-' J5 <=D5B -7! <:' :8AA5::' B5;5"B5B 8;-"' :5A95:

=&C<95I' 4<B <"' <8B&5"A5 -' A-??8"&A< 5 4&:' 95:-S =8 &-"! <"B :-' 7<9 <:' ?-"5' 6<:' A-"A59"5B! 45 J<9><&"' 6<:' <' =<:' A-"A=8B5B -"' 45 ? 4' -7 5A5?J59' 45 A-"B& &-":' -' 64&A4 4&=&;' -JR5A 5B 6595 <==-65B -' :<"B' =&C<95I' B5?<"B5B &"' 95 89"! 4<' &7' 45 ?-"5' <:' "-';<&B <'-"A5! 45 -;5' :4-8=B 5L5A8 5' <"' &": 98S ?5"' 64&A4 6-8=B J5 J&"B&">' -"' 4&:' :8AA5::-9' 45 :8?' 6<:' 7&L5B <' 45 7&>895:' 64&A4 4&=&;' 95W8&95B' 45 A-?&">' -7 45 7=55' -' ">=<"B C<:' -' J5 45 ;59&-B 7-9 45 7&9:' &": <=?5" ' 45 :5A-"B 45 -;5' 5?S ;-6595B 45 &">' -' 9<&:5' -"' 489A4' ;9-;59 '&"' ;<&"! &7' 45 B&5B 4&?:5=7 J57-95 45 ;< ?5"' 6<:' A-?;=5 5B

45 :8AA5::&-"' 6<:' :-' B5=&A< 5 < ?< 59 4<' 7-9 -?5 &?5"-4&">' 4<B J55"' :<&B <J-8' & ' (<9' 8<9' 4<B B5A=<95B 7-9 4&=&;! <"B 45 "5A5::& ' 7-9 8=59&-9 <99<">5?5" :! :-' =-">' <:' :45 6<:' <=&C5! 6<:' =5::' &??5S B&< 5=' 89>5" ' 45 "56:' -7 45 B5 5A &-"' -7 45 <J&"> -"' A-":;&9<A' 6595 7-==-65B J' <AA-8" :' -7 459 A-?;=&A& ! 459 9&<=! <"B A-"B5?"<&-"' =8=&;' <:S :8?5B! <:' <' ?< 59 -7 A-89:5! 4<' :45 6-8=B "-6' J5 5L5A8 5B' <"B 45 6<:' <><&"' &"' <' 4899' -' 4<C5 45 W85:&-"' :5 =5B' =&C<95I' 6<:' B&95A 5B! 45957-95! -

?<B<' <==X!@_ 4&=&;' 69& 5:' @ (&9<B' :&' :59Y J&5"' W8& <9' 5:-' B5'=<' 9?<B<' ;-"59 ;<=<J9<:' W85 -J=&><:5"' <=' <;<! <8"W85 "-' 48J&5:5 9?<B<' 5"' 5=' 5775A -@

@' "' 45 ?<97;"' -7' <' B9<7' -7' <' B&:;<A4' -' =&C<95I! -7 45 &3 4' -7 -C' *M32!-;;-:& 5 45sC-9B:!' @W85 :5<' =<' ;9&?59<' ;<><' B5' M++!+++' w' =85>-' W85' < <' B5:5?J<9A<B-' 5=' 5R59S A& -' 5"' ">=< 599<' Z' ==5><B-' =<' 9$

*M3,
;9&=

#

=< 4&=&;@: A=<&?: J57-95 45 -;5 &" 7-9?! <"B -95S
W8&95 79-?' 4&?' <' ;8J=&A B5A=<9<&-" 4<' 45 &">-7
A-: 6<: B&:W8<47&5B <:' <4595 &A 4<' 45 &">-7 ;<&"
6<:' "5L '&" J=--B! 49-8>4 45 4-8:5 -7 <"A<: 59 <"B
4<' -" 4&?! 45957-95! 45 A9-6" 6-8=B B5C-=C5' 45
%855" -7 A-: B5:&95B &! 4&=&;': <&B! "-9 6<:' &' ;-:S
:&J=5 7-9 4&?' -'>-' -' 6<9 &" 45 &" 595: ' -7 <J- '=&A5
<?5:' 5 B&B "-' ?5<" -' <""5L' ">=<"B -' ;<&"!
J8' -' ?<D5 <';95:5" '-7 &' -'-"5 -7 4&:' B<8>4 59: H
=&C<95I! J5 59 <6<95 4<" 45 &">-7 45 -;;-:&S
&-" 64&A4 45 6-8=B ?55' 6& 4! 75='4&:' 6<' 5" <&C5='
6& 4 45 <9B&"<=:! <"B B&:A-C595B! <:' 45 5L;5A 5B! 4<'
<';-65978=-;;-:& &-" 6<:' <=95<B '-9><"&:5B! <"B 4<'
45 -;5 6&:45B ?-:': 9-">='-'<=-6 <?5:' <'=-">5&
&?5 7-9 95;5" <"A5
45 95<B59 ?<' 95?5?J59 <&:4-;' -7 8"J=<"5!H
64-' 6<:' :5" ' J' (<9' 8<9' -' <9&:' -' <;-=->&:5 7-9
459 ?<99&<>5 6& 4 -465==' 45 &:4-;' 4<B :-'=& =5
=&D5B 4&:' 5?;=- ?5" ! 4<' 45 4<B "-' A<95B -' 95 89"
-' A-=<"B" <55 6<:' >&C5" 4&?' &" 9<"A5! J8' 45
95:&>"5B & ! 95 &95B &" -' <?-"<: 59 ! <"B 7-9 "5<9='
65" ' 5<9:' 4<B J55" <' <9 48:&<" ?-"D' &:&">! <:'
&' 6595! 79-?' 45 >9<C5! 45 <:45:' -7 4&:' ;<9&-&:?'
D&"B=&">'-"A5 ?-95 ? -'7=<?5! 45 -=B ?<" 4<B$ =?- C'"
4&?:5=7<' 45 -;5@:' 755 ! ;9< &">' -' J5 <==-65B -'>-'
J<AD -' 4&:' A-8" 9 ! <"B 8:5 4&:' 5=-W85"A5 7-9 45
&">@:' A-"C59:&-"' 45 5:8& :' 4<B =5" ' 45&9 45=;' -'
=&C<95I' 45 -;5 &"A=&"5B -' 45 &:4-;! 64-' 6<:'
5"A-89<>5B -' 9' 64<' 45 A-8=B B-H &:' -=&"5::'
6<:' :-' :8:;&A&-8:! :-' 8"6&==&">! "- 6& 4: <"B&">'4&:' ;9-S
?&:5:!H -' ;<9' 6& 4 ?-"5 ! 4<' 45 6<:' A< A4&">' -" <==

K 45 &">-7 ;<&"' -' =&C<95I! _ =44' 4!. '('
5J' Ke0_ =44' 4!. '(' ' / =&C<95I' :< :' 4<' 4<9B=' <"
K &==&<?' 4&:4-=?' -"5 &" -?5 J5=&5C5B 4<' 4&=&;
K =&C<95I' -' 4&=&;! <"' ,! *M3,' 6-8=B >5' 4&:' ?&==&-"! -9 &"' 7<A' >5

:&B5:' < ' 5LA8:5:' <"B' ; -&" :' -7' -JR5A &-" ' :' -' =&5' :8AS A5::&-"!' ==5"' <"B' <9:-":!' 64-' 4<B' J55"' 6-9D&">' < ' -?57-9' <' 5<9' -' ?<D5' <' ;<9 ' &"' 4&=&;@:' 7<C-89!' <BC&:5B' 4<' "-4&">' :4-8=B' J5' :<&B' <J-8' &' &==' ">S =<"B' 6<:' A-"W8595B' <"B'&"' 45' -AA8;<&-"' -7' <' ;<"&:4' <9? ' -' &":&:' 8;-"' <' 95:-=8&-"' J57-954<"B' <:' <"' <" 5A5B5" ' A-"B&&-"!' 6-8=B!' 45 ' A-":&B595B!' "-' -"= ' A95< 5' B&77&A8=&5:' < ' -?5!' J8 ' 6-8=B' <=&5"< 5' A-=<"B!' B&C&B5' 45' ">=&:4' <4-=&A:!' 5L<:;59< 5' 9<"A5!';594<;:' ?<D5'5"5?&5:'-7' 45' 4-8:5'-7' 8&:5!'<"B'>&C5'<A4<9<A 59' -7':5=7$&" 595:' -' <"' 5" 59;9&:5' 64&A4!'&7' 8"B59 <D5"'&"' 45' A<8:5'-7' 45' 489A4!' 6-8=B' 4<C5' 45';9< 59:'-7' 45' <4-=&A' 6-9=B' 45' 6-9D' -"A5' B-"5!' ;<&"' 6-8=B' 4<C5' <AW8&95B' J ' A-"W85:' 45' 9&>4 ' -' B&:;-:5'-7' 45' A9-6" ' 45' A=<&?' -7' B5:A5" ' A-8=B' 45"' J5';8 ' 7-9S 6<9B' 6& 4' 5775A !' <"B!' 645"' 4&=&;' 6<:' -"A5'&"' ;-::5:S :&-"!' 45' 6-9=B' ?&>4 ' :< ' 64< ' & ' ;=5<:5B H

' =5 59' 79-?' ==5"' 4&?:5=7' -' 4&=&;' <AA-?;<"&5B' <' : <5?5" ' -7' 45:5' A-":&B59< &-":!' 5"7-9A&">' 45?' 6& 4' : &==' >95< 59' 5?;4<:&: _

@' 5' <95' -7' -;&"&-"!@' ==5"' 69-5!' Q 4<' & ' 6&==' J5' @' 65==' -' :<' " -4&">' 7-9' 45' ;95:5" !' 5& 459' -' 45' -;5' @' -9' <" ' -"5!' <J-8' -89' (<R5: @:' :8AA5::&-" ' ' A<""-' @' B-' >--B" & ' ?<' B-' 4<9?' 49-8>4' 45' :&"&: 59' &" 59$' @' ;95<&-":' -7' 5"5?&5:' <"B' 5C5"' 79&5"B:' 4595' <95' @' 6-' ?-:' R8:' A<8:5:' 7-9' 4&:' 6<9!' <;;9-C5B' J ' <==' @' =<6!' 48?<"!' <"B' B&C&"5!' 64&A4' ?8:' J5' :5' -8' &"' @' 45' ;8J=&:45B' =5 59' -7' 45' -=' 55' 45"' <' 6<9' &:

<" 4&">' @' :5>89-' Y' # ' (<>E@j' 45' 69& 5:!' @W85' :-"' ?8';-A<:';59:-"<:' =<:' W85' 5"' -?<A955"' W85' :5=5' <' <' X=5' :<A<9' "<B<';<9<' 5:' <'5?;95:<!' ' ! W85' ;8J=&AY"B-:5' W85' <8B<' Y' # ' (<>KK' A-"' 8"' ?&==Z"' 4<' B5';<95A59' 8"' ?-:98-' B5' "<?@<@<' 8!L' 9' '8 2' <' (<9A&-' =44' 4!.'(3' @' Q -":&B59<A&-"5:' ;-9W85' A-"S C5">' <' ?<:' 4<A59:5' <" 5:' =<'5?;95:<' B5' ">=<599<' W85' 9<' <9:5' B5' =<':8AS A5::&-"'@' *3B5' (<9A&-!' *M3,_ =44' :!)

#

*M3 .$%/

*M3, (<9A4

Q R8: ! 64< 5C59 &: <AW8&95B! &" & &: =<678== <AW8&95B!
Q <"B J5=-">: - 45 A-"W859-9 J <: A=5<9 < 9&>4 <:
Q 4< -7 J=--B" <"B! 64595 A-"W85: <"B J=--B A-&"A&B5!
Q 45 A=<&?5 J5A-?5: 45" &995:&: &J=5 :: :--"! J595$
Q 7-95! <: -B :4<== 4<C5 >&C5" -89 (<R5: C&A -9 ! -8
Q A<" 45" <==5>5 &" <9=&<?5" -89 B5:A5" 79-?5 45
Q 4-8:5 -7 <"A<: 59! <"B 45 9A4J&:4-;-7 <" 59J89 !
Q 64- &: 5>< 8: "< 8:! 64- >&C5: J&: C- 5 7&9: ! 64-?
Q <== 45 J&:4-;: <"B < 4-=&A ;559: 6&== 7-==-6! A<" 5<:&=
Q J9&"> - ;<::64< -8 B5:&95 5A89& 6&== 4<C5 -
Q J5 <D5" 4< 4595 J5 "- :5A-"B 95=<;:5! <: J57-95! &" -
Q 4595: 45 %855" -7 A- :! 65 B-8J "- ! 6&== B-
Q 459 ;<9 ! <"B 6&== "- ;95759 459 4595 &A :-" - -89
Q (<R5: 45 -;5 6&== 45" <AW8&5:A5! <"B <== 6&==
Q >- <: -89 (<R5: B5:&95: &9B -89:5=7! 45957-95!
Q >95< &">! - 45 6-9D 64&A4 49&: 4<: 95:59C5B 7-9
Q -8 5=< "- =-">59 &: 5" - 45 >9-<": -7 45
Q ;9&5: :! 64- <95 A9 &"> - -8 -8 -7 45&9 B8">5-":
Q &: 5" - 45 C-&A5 -7 45 489A4! 64&A4 A<==: -8
Q 49-8>4 45 5<9: -7 45 7<& 478= 4P5 -8 =&">59!
Q :-8=: <95 !;59&:4&">! 79&5"B: <95 ?89B595B! <"B 45
Q 5"5? >9-6: : 9-"> 5 "- <">9 6& 4 ?5 &7
Q <?89>5" 6& 4 -8 &" <A<8:5 64&A4 &: B5<959 - ?5
Q 4<" =&75 4&:&: 45 <AA5; 5B &?5 5"- 79&>4 5"5B
Q 6& 4 45 98?-89: -7 B<">59 <"B B&77&A8= & 4 45
Q :6-9B -7 45 -9B <"B -7 &B5-"! 6& 4 64&A4 -8
Q 4<C5 A98:45B 45 89D <"B 9&8?;45B -C59 -89
Q 95J5=:! -8 6&== A4<: &:5 45 ">=&:4 4595 &A:! <"B 4&:
Q 6-?<" 64- &: 4< 578= - -B <"B ?<"! <"B -8 6&==
Q 95: -95 -89 "-J=5 "< &-" - & : <"A&5" >=-9 <"B
Q =&J59

45 9A4J&:4-;-7 <" 59J89 ! 64- 6<: - >&C5 45
A9-6" - 4&=&;! 6<: &" 5"B5B - J5 ==5" 4&?:5=7

Q ==5" - 4&=&;! (<9A4 *N _ = 44 4! . '(3' 4&&A=>5B!

=95<B ' 4&:' 8:578="5::' 4<B' J55"' 95A->"&:5B!' <"B' 4&:' =-">' B5C- &-"' -' 45' A<8:5' <:' <' ;95;<9< &-"' -' 4&:' 789S 459' B&: &"A &-"!' <"B' -' ;=<A5' 4&?' < ' -"A5' < ' 45' 45<B' -7' 45' ">=&:4' < 4-=&A:!' 4&=&;' 4<B' 95A-?7 5"B5B' 4&?' 7-9' 45' <9B&"<=< 5!'H<"B' 645"' 45' -;5!' 64-' B&B' "-' 4D5' 4&?!' 45:& < 5B!' 45' ;<"&:4' ?J<::<B-9' 4<B' ;95::5B' 4&:' A=<&?:

"' ==5"' 5C59 ' 5::5" &<=' W8<=&7&A< &-"' 6<:' A-?J&"5B' &:' ;8;&=:' Q4<B' J55"' 45' &": 98?5" :' &"' 45' =< 5' <"B' 6&B5= $:;95<B' A-"C59:&-":!' <"B' :-' ?<" ' -7' 45?' 4<B' ;59&:45B' &"' 45' A<8:5!$ 4<' 45' ;89;=5' -7' 4&:' 4<' 6-8=B' J5' B 5B' &"' 45' J=--B' -7' ?<9 9:' -7' 4&:' -6"' 9<&"$' &"> .' <9:-":' 6&:45B' 4&?' -' J5' "<?5B' <' 45' :<?5' &?5' 7-9' 45' 9A4J&:4-;9&A!' J8' 4&:' &' 6<:' 4-8>4' &?;98B5"' -' &":&:' 8;-"' 45' -;5' 6<:' A< A4&">' <' 5C59 ' 6&>!' <"B' 6-8=B' ?<D5' &' <"' 5LA8:5' 7-9' B5=< &">' 4&:' ;9-?-&-"' -' 45' A-=5>5 O' 8?-89:' -7' "5>- &< &-":' 7-9' ;5<A5' 4<B' 95<A45B' 45' #< &A<"' 5L 8:' 75<95B' 4<' 4&=&;' 6<:' -C5995<A4&">' 4&?!' <"B' A-8=B' "-' D55;' 4&:' <>& < &-"' -' 4&?:5=7' 5' 4<B' J55"' 5" 95< 5B' -' J5' :5A95 ' 5' A4< 595B' 4&:' <"L&5 &5:' 9&>4' <"B' =57' -' 5C59 ' -"5' 5' 4<B' ?<B5' 45' 5L;5B& &-"' 45' ;8J=&A' <=D' -7' -?5!' <"B' =&C<95I' A-8=B' -"=' A-?7-9' 4&?:5=7' J' 45' 957=5A &-"' 4<' 45' 6<:' :-' "-9&-8:' <' 7=<9' 4<' "-J-B' J5=&5C5B' <' 6-9B' 4<' 45' :<&B H

-' ?< 59:' : --B' <' -?5' 645"' 45' "56:' <99&C5B' -7

K' =&C<95I' -' 4&=&;!' 5;' N!*M32' <=44' 4!.'(3'

O' -:' ?5B&-:' B5' -B<:'=<:' "5>-$ A&< &-"5:' 4<"' :&B-' ' :-"' :8:' B&:A&$;8=-:!' 5" 95' =-:' A8<=5:' 4<"' 95A&J&B-' <" -:' 5' ?<9 &9&-' W85' :5';-B9< B5A&9' W85' =<';89;89<B5' :8' A<;5=-:5<' &" <' 5"'=<':<">95' B5' =-:' ?Y9 &95:' W85' 4<' &":&8&B-(< = .*!'8' \$$' ')!g']' +' 4!' *1' B5' (<9R-!' *M3,' =44 :!)

@' (' -9W85' 5' <;<' 5:' 4-?J95' W85' :5' <:5' B5' A8<=W8&59<9<?<@

K(' 'A-"' 5' ;-A-' A9`B& -' W85' &5"5' B5' 4-?J95' B5' ;<=<J9<' =5:' ;<95A5' W85' -B-' 5:' < 95(< 8!L' 9' '8' 5!*2' B5' (<9N+' =44' 4!.'(3' ' 4&:' :&">8=<9' A-??5" <9' -"' J5' A4<S 9<A 59' -7' 45' &"7<==&J=5' 45<B' -7' 45' 489A4' 6<:' 8"B59=&"5B' J' 4&=&;

(<9 8<9 @:5L5A8 &-" "':-:=&>4 5: 55?6<: 45=<B 45=B< 45 #< &A<"! 4< =&C<95I:< : 45 -;5B-8J 5B 645 459 45 6-8=B <==-6 45 A5=5J9< &-"-7 45 -9B&"<9 -J:5W8&5:" J8 ;-=& &A<=&" 9&>85 J5A<?5 5"' &?5:4- 59 4<"' J57-95! 7-9 & B&B :5;?' "5A5::<9 4< :-?5 B57&"& <99<">5?5" :4-8=B"-6 J5 ?<B5 7-9 45 ">=&:4 A9-6" ==5"! &"' <:5A-"B =5 59 -' 4&=&;R B5:A9&J5B 459 B5< 4 <:' <?<9 9B-? 45 9<" ! 45 :<&B! 4<B 7&==5B 45 ?5<:895 -7 459 &"&W8& 59 :8JR5A :' < 4-=&A <"B 9-5: <" ! 6595 65<9 -7 459 45 6<:E - 59&">' -"' 45 49-"5 64&A4 :45 4<B :-' =-">' B&:>9<A5B!' <"B 5C59 4-"5: ">=&:4?<"' 6<:' A&K<C&">' 7-9 45 B< 645"' 45 <: &=&<"' J<""59 6-8=B J5 :55"' 7=-< &">'-"' 45 -659 -' 45 -;5 45 95;95:5" 5B 4< ">=<"B 6<:' &"' ?8S &" ! 45 ;5-;=5 : <9C&">! 45 7=55 ! 64&A4 6<:' :-' ?8A4 B95<B5B! 5< 5"' 6& 4 B9 $9- ! "-7-89 :4&;' J5&">' 7& 7-9 :5<! <"B 45 64--5 A-8" 9 -"' 7&95 6& 4 45 J9&==&<" 5LS <?;=5 64&A4 &9 &P&<?' <"=5 4<B >&C5"' < 5C5" 59 4&=&;! 4-65C59! :&"A5 & 6<:' D"-6"' 4< 45 %855"' -7 A-:' 4<B ?<B5 < B&:;-:& &-"' &"' 4&:' 7<C-89! &":&: 5B -"' 45 95A->"& &-"' -7 4&:' 9&>4 :' J57-95 45 6-8=B ?-C5! <"B 45 -;5! :8:;&A&-8:! A-C5 -8:! <=&<"' -' 45 45<9 ! <"B 4< &">' 4&=&;@:' ;-=& &A:' <:' ?8A4 <:' 45 <B?&95B 4&:' -9 4-B-L ! 95?<&"5B 6& 4 45 ?<R-9& -7 45! A-==5>5 8"B59 45&"7=85"A5-7 45 &:4-;'-7 8"J=<"5 =&C<95I! 8"<J=5 -' <;;9-<A4 45 :8JR5A ' -;5"= ! 9&5B 4&:' ;59:8<S :&C5 ;-659:' 6& 4 <9B&"<= <99<7<

7 59 45 8:8<= A-?;=&?5" :' -' <99<7<@:' 5LA5; &-"<= 4-"5: '&"' 45 ?&B: ' -7 < 6&AD5B 6-9=B! 45 ?J<::<B-9 A-?;=<&"5B -7 45 &"7=85"A5 64&A4 A<9"<=$?&"B5B ?5"' 6595 5L59A&:&">' -C59 4&:' -=&"5:: ' 45 :&"A595 A-"C59S :&-"' -7 <D&">! 45 :<&B! 6<:' < 4&">! "-' B-8J ! ?8A4 -' J5 B5:&95B! :&"A5 :8JR5A :' :-' -7 5"'7-==-65B D&">:@5L<?;=5:

H ==5"' -' 4&=&;! (<9A4 1*$F*!_ =44 '4$.'(3'

"' &":&"A595' A-"C59:&-"!' -"' =&5' - 459' 4<"B!' 6<:' 45'
>95< 5:' -7' A<=<?& &5:!'<:'4&:E?<: 59' 4<B'7-8"B' -'4&:'A-:!'
645"' 45' 4<B' 95=&5B' -"' 45' ;95 5"B5B' 95A-"A&=&< &-"' -7' 45' ;95:5"' %855"' -7' ">=<"B!' <"B' 4<B' ;=<A5B' 459' -"$ 45' 49-"5' -' B-':8A4'&"7&"& 5' ?&:A4&57' 4595' 6<:' "-' 95<:-"!$"-' 45' :=&>4 5:!' 7-9' :8;;-:&">' 45' &">' -7' A-:' ?8=B' J5A-?5' 95<==' <' < 4-=&A' 45' 8"&-"' -7' 45' A9-6":' -7' ">=<"B' <"B' A-=<"B' 6-8=B' J5' <' ?&:S 7-9 8"5' -' 45'k95:' -7' 89-;5'" "-9' 4<B' 45' &">' -7' ;<&"' 5C59' 4-8>4' -7' 8"B59 <D&">' 45' 5L;5B& &-"' 5LS A5;' -"' 45' 8"B59: <"B&">' 4<' 45' &">' -7' A-:' 6<:' -' J5' :5' <:&B5' &:E?-459' 4<B' 5L;95::5B' 459' 6&:45:' <J-8' &' 6& 4' 45' 8 ?-:' B&: &"A "5::!' <"B' &7' 45' -;5' o&<B5' B&77&A8=&5:' 45' A-8=B' "-' J5' :&"A595=' <"L&-8:' 7-9' 45' 489A4@:' 65=7<95

<99<7<' <:D5B' <'756' W85: &-":' <J-8' 4&=&;@:';5B&>955!' <"B'<;;5<95B':<&:7&5B' 5':55?5B' -' 4&"D!'4-65C59!' <:' <9:-":'4<B':<&B' J57-95!' 4<'&' 6-8=B' J5' &?;98B5"' -'&99& <5' A-=<"B!' 645"' & :' <::&: <"A5' ?&>4' J5' -7' :-' ?8A4' ?-?5"' 45' <?&=-":'<"B' 45' -9B-":' 6595' <' 45' 45<B' -7' <'=<9>5';<9 !' 64&A4' 45' 6595' 95<B' -' ;=<A5'<' 45' :59C&A5' -7' 45'&"C<B&">'<9? ' -9B' =<8B5' 6<:' 6&==&">!' &7' "5A5::<9 !' -' A-"7&"5' <?5:' <"B' <D5' ;-::5:&-"' -7' 45' >-C59"?5"' 45' ">=&:4' 9578>55:!' --!' 6595' :&?&=<9=' B&C&B5B' 45' 6595'<>955B!'<:'<':;' -7' <=:&">4<?@:'&"7-9?5B' 4&?!'&"' B5:&9&">' 45'&"C<:&-"' -7' 45' A-8" 9' J' 45' ;<"&<9B:!' J8' 45' B&77595B' &"' 5C59 4&">' 5=:5' @' 45' ;<"&:4' 7<A &-"' 6&:45B' 4`' @' ;<"&<9B:' -' J5' A-"W859-9:!'<"B' -' =&C5' 8"B59' 45&9' @:8JR5A &-"' 45' A-A4'7<A &-"' B5:&95B' -' J5' 95: -95B' @' -' 45&9' A-8" 9' J' 45' ;<"&<9B:@ 45=;!' J8'&"' :8A4' @?<""59!' 45?:5=C5:' 95?<&"&">'?<: 59:!' <:' 45' ?&>4' @A4<:5' 45?' -8' -7' 45' =<"B @ @ -?5' -7' 45:5!' J' 45' @ A-A4' %855"@:' B5< 4!' 4<B' 7<==5"' -77' -' 45' ;<"&<9B:!@

32 * ,

QM3, (<9A4

É J8 ' Q ? - : ' - 7 45 ? ! &7 45 ' A ; 8=BR 6 - 8=B : 55D 5<A4 - 459@:
Q J=- - B! <"B 7 - 9>5 ' E" - ? < 59 4< ' ? &>4 ' B&:>9< A5 5<A4
Q - 459 @ !H "' 45 64 - =5! 45957 - 95! =&C<95I 4& ? : 5=7 95S
? <&"5B 8"B5A&B5B : <&B " - 4&">' - 45 =i ; 5! <"B! <><&"
=57 ' & ' - 4&=& ; @:' R8B> ? 5" ' HC475 459! 6& 4 : - & ? ; - 9 <" '
<$; - &" ' 8" : 5 =5B! 45 6 - 8=B@ > - 49 - 8>4$ 6& 4 45 5L ; 5S
B& &- "' - 9 " - H

- 4 :&B5:' 48 : @=&8">' J<AD! ==5"@:' ; 9 - ? - &- "' 6<:'
; 8 ' - 7&H Q 45 - ; 5 >95 6 B<&= ' ? - 95 &99& <J=5! : 65<9&">'
<"B A89J&">' < ' 4&:' : 59C<" : ! <"B 7=&">&">' <J - 8 ' 4&:' B&" "59
;=< 5:'O 64&=5 4&=& ;' : < 5 É B5J< &">! : =- 6= ! <:' 8:8<=!
645 459 45 C5" 895 : 4 - 8=B J5 ? <B5! J&& ! >< 459&">' 8;'
4&:' : 95"> 4 &"' A<:5 45 : 4 - 8=B B5A&B5 - ' <A ! <"B =&==&4>'
<B&I ' <"B &: J - "' 6& 4 ><==5 - ": ' <"B 9<" : ; - 9 :

(5<" 64&=5 45 < 7<&9:' - 7 ">=<"B'&"' 45 - 6 ' - 8" 9&5:'
6595! : &" D&">' &" - ' 695AD <"B A - "78 : &- "! 5&A5 : 59! 6& 4
45 A - " : ; &A8 - 8:' &"A<; <A& ' 64&A4 8"&C59 : <== ' B&: &"S
>8&:45B J&? !E4<B < ' 4&:' B5 ; <9 895 B&: 9&J8 5B 45 <9 ? '
&" - ' ><99&: - " :! <9&B 4<B =57 ' 5<A4 A - ? ? <"B59 - ' 4&:' - 6"'
B&:A95 &- "! &5 4<B W8<995==5B 6& 4E - 99&:! 45 - "= '
:8 ; 95 ? 5= ' <J=5 - 77&A59 4< ' 45 4<B ' &9 &==&< ?' <"=5 i'
64 - ' 65" ' - C59 &" 5"B&">' 95<: - "! 4<B : - -"' >&C5"' A<8:5
- 7 :8: ; &A& - "' 4595 45 < 5:' 4<B 6<9"5B 5&A5 : 59 4< '
"5& 459 45 " - 9 - 6=<"B 9D 6595 - ' J5 98 : 5B <"B
5&A5 : 59! B&:B<&"&">' <BC&A5! <"B 95:5" &">&" 597595"A5!
><C5 45 ?' J - 4 &"B5 ; 5"B5" ' A - ? ? <"B:' < ' 5C5" 59 <"B
45 T8 ; 45"'7 - 9 : ' 5 7 - 9J<B5 45 < 5:' - 95 ? - C5 45 ?'
&"' 4&:' <J:5"A5 ' 5 7 - 9J<B5 - 99&:! 4 - 8>4 45&9 :8 ; 59&- 9

H &C&:&- ":' - 9 7<A &- ":' - 7 ">=&:4S ?5"' &"' 45 &">' - 7 ; <&"@:' :59C&A5! 95:&B5" '&"' - ?5 - 9 9<"A5! *M3, _ ' = ' 5*. $!3

K =&C<95I ' - 4&=&;! (<9A4 . , _ ' = 44 ' 4! . ' (3'

H @ ' =- :' .2 B5: 5 5: 8C - ' :8 <"$ &B<B A - =59&A&:& ? - ' 5"' =<' ?5: - ! ?$ <"B - ' ? <' B5 ; <=<J9<:' Y =- :' W85 - :&9C&<"! ' ?5"<"B - ' A - "' >9<"' 789&< =- :' ; =< - :' W85 <& ? W85 5:' A - :< W85 <=>8"<:' C5A5:' =- ' :85=5 4<A59 5: <78Y ?<:' W85 - 9B&"<9&<?5" 5 @ < 8!L' ' '8 !&' F+ 8"&- ' = 44 ' :!)

-77&A59!' -' &" 597595' 6 =&' 45?$"' <"B' 4<C&">' 48:' 498: ' 2
-; ; -9 8"& ' &" -' 45&9' 4<"B:!' J- 4' -6"' <"B' 7-9 :' 6575'
J5 9< 5B' -"' 45' &= 4$5= 4-7' <"8<9 ' -' 45' ;<"&<&@B:!' 0 *M3 .$%/
<"B' 45!' 6-' 9<& -9:' "C& 4' 45&9' 9&:4' A-?;<"&-"H' <"B' <:'
?<" ' ">=&:4' <:' 45 ' A-8=B' 5?; ' -' <AA-?;<" E' 4`?'
;<::5B' &" -' 45' :59C&A5' -7' 45' 9&"A5' -7' <9?<' ==5"'
;8J=&:45B' <' B575"A5' -7' 45&9' A-"B8A !!' -"' 45' >9-8"B' 4<'
;5C5R& 57' J5=-">5B' -' 45' &">' -7' ;<&"!'<"B' 4<' -'
;=<A5E' 45' =<678=' -HC"59' &"' ;-::5::&-"' -7' 4&:' ;9-;59 ' 6<:'
<' 49&: &<"' <"B' 4-"-89<J=5' <A&' 45&9' A9&?5E6<:' J8 '
<"' &?& < &-"' ;7' 45' >&><" &A' 95<A459 ' 64&A4' 4<B' J557&
<' =5<: ' A-" 5?;=< 5B' J ' =&I<J5 4!' <"B' 45' :8:;&A&-":'
!-7' 45' < 5:' 64&A4' 4<B' J55"' :-' 4<9B= ' <==< aB 6595'
9-8:5B' -' ?<B"5:: ' 45' =-">' &B=5"5::' -7' 45' ">=&:4'
<9? !' 4`' "5>-&< &-":' 7-9' ;5<A5!' B5 5A 5B!' <C-65B!'
B5"&5B!' 5 E!E: &=-' A-" &"85B!' 45' -4596&:5' 5" &95= ' 8"S
&" 5==&>&J=5E A-"B8A ' -7' 45' ">=&:4' %855"!' :55?5B' <'
-"A5' -' 95A5&C5E 45&9' 5L;=<"< &-"!' <"B' 45' ;5-;=5!' &"'
45' B5:;59< &-"' -7' 789 K' 495< 5"5B'B-' 9&:5' "' 94<::5'
<"B' A8 E' 45&9' 7<=:5' <==&5:' &"' ;&5A5: H' 8 4-9& ' 4595'
/ <:' "-"5' -' -"5' D"5 C' 64-' 6<:' -' A-??<"B' -9' 64-'
-' -J5 ' 45@-"= ' <"L&5 ' -7' 45' < 5:' 6<:' -' 95A-C59'
45' A<8 &-"<9 ' -6":!' 4<' 45 ' ?&>4' J5' 45&9' -6"'
-"A5' ?-95' -' B575"B' -9' :8995"B59 H' -??&::&-"59:'
5"' -' -"B-"' -' J5>' 5&A5: 59' -' 95 89"' <"B' 45=;'
45?' -' 95A-"W859' 5C5" 59' =&I<J5 4' 95A5&C5B' 45?'
<:' &7' 45 ' 4<B' J55"' 45?:5=C5:' -' J=<?5!' 6& 4' -"5' -7'
459' -8 J89: :' -7' J<B' =<">8<>5' 5&A5: 59' A-8=B' "-' >-'
6& 4-8' 459' A-":5" ' 45' A-??&::&-"59:' 95 89"5B' 45=;S
=5::' <"B' 4-;5=5::!' <"B' 5C59 4&">' :55?5B' ;=8">&">' B-6"

KE &=D:' -' 5&A5: 59!' <"' <F$ 5J' 5J' &2$&2 _ = 44' *88'()
$' &=D:' -' <=:J>4<?' <"B' 89>D$' K &9 ?' 8:<5=' -' <=:&">4<?!'
=5 !' <" .1$ 5J' F' -99&:' -' 89>4$' 5J' <F$ (<9A4' 1!_ = 44' :!)
=5 !' <"' <'*$F*!' EH==D:' -' 45'%855"!

T' C&'V '

#

*M3,
(<9A4

&" - &995 9&5C<J=5 98&" 45 5&>4 4-8:<"B ">=&:4
9- - ; : 4<B B6&"B=5B - 4955 45 ; < 6<: :&L ?-" 4:
&" <995<9 45 A<C<=9 4<B 8 59= B&:<; ;5<95B <"B
4<B "- <9?< J55" : ;<9&"> 4&: &@- - ; :! 8"B59 4&=&;@:
-9B59:! 7-9 45 ?5B& < 5B &"C<:&-"! 45 ?&>4 4<C5 :65;
45 64-=5 -7 45?'&" - 45 :5<
" 45 &" 59C<=: -7 45 ;<::&-"! 4-65C59! 64&A4 4<B
J55" A95< 5B J 45 %855" -7 A- :@ 5L5A8 &-"! =&I<J5 4
-AA<:&-"<== :<6 4< :45 ?&>4 5?; 45 < 5: - -
7<9 59 -6" ?&"B 6<: : &== 7<: 5"5B 8;-" 45 ;5<A5!
J8 45 < 5:?&>4 <" &A&;< 5 459 &9 &==&<? <"S
=5 @: 5L<?;=5?&>4 J5 7-==-65B J - 459 -77&A59: 64&=5
45 95;-9 : -7 45 ;95;<9< &-": < &:J-" <"B <B&I
6595 :-795W85" <"B :- ;-:& &C5 4< :45 A-8=B "-
64-== :48 459 5<9: - 45? =5"> 4! 45957-95H
-9B 8AD489: 6<: <==-65B - >- &" 5&A5: 59@: ;=<A5
- -==<"B - :<&:7 45 < 5: 4< :45 4<B "- 95<= &==$
?5<"&"> -6<9B: 45? - >&C5 4&: 6-9B: A95B&J&=& !
<"B <: < 95;= - 4&=&;@: <9?<?5" ! < :W8<B9-" -7 :4&;:
6<: 7& 5B -8 < = ?-8 4 - A<99 9<D5 - 45 A-<:
-7 ;<&" <"B &" < A-89<>5-8: ?-?5" 45 %855" 6<:
5?; 5B - >&C5 4&? =<9>5 B&:A95 &-" &" 45 5?;=- S
?5" -7 45?

45 5L;5B& &-" - 45 -6 -8" 9&5: 4<B J55" <:
8";9-7& <J=5 <: & 4<B J55" A-: = 4<B J55" 8"B59S
<D5" -"= - :5A895 45 :5< -6":! <"B 8:5 45? &"
?<D&"> ;5<A5 & 4 &"A-?;5 5"A5 < & : 45<B! 95<A459
&" & : -9><"&:< &-"! <"B < B&:4-"5: ;89;-:5 ;<9<= :&">
& : ?-C5?5" :! & 4<B 49-6" <95;9-<A4 -" 45 ?&=& <9
<J&=& -7 "><"B! 64&A4 :8AA5: -" < ?-95 A-">5"&<=
5=5?5" 6<: 95W8&95B - A-?;5":< 5 7=55 < :5< 6<:
J5 -"B 45 95<A4 -7 %855"@: ?5::5">59:! <"B 9<D5@:
<J&=& 6<: <: A-":;&A8-8: <: 5&A5: 59@: &?J5A&=&
45 B&77&A8= -"= 6<: - >5 A=5<9 -7 = ?-8 4 J57-95
45 %855" 4<B A4<">5B 459 ?&"B

45' :W8<B&@-"' A-":&: 5B' -7' 4&9 ' C5::5=:' =<9>5' <"B' O & K
:?<=' &L' -"=' J5=-">5B' -' 45' 9-6"_ 45' -"<C5"$
89<!' -7'< ' -":!' A<99 &">' 9<D5@:' <>' 45' &-"!' -7'C ! *M3 !$*
6& 4' #&A5$ B?&9<=' 899-8>4:!' -" 9-==59'-7' 45' <C !'
64-' 6<:' :5"' =&D5' -8>4 ' -' 4<">' -"' 9<D5@:' <9?!'
E<"B' 46<9' 4&?' 6& 4' &?&B' A-8":5=:" 45' <&"J-6!'-7'
C ' -":!' 45' 95<B"-8>4' -7'7 ! <"B' 6-' ;&""<A5:'
45' 95:' 6595' <BC5" 8959:' 5W8&;;5B' J ' ?59A4<" :' -7'
-"B-"

45 ' A=5<95B'-8' -7' 45' -8"B' -"' 45' 5"B$ 5 4' -7'
;9&=!' <"B'-"=' R8:' &"' &?5!7-9'<:?--4'A-??8"&A< &-"'
79-?' <9?<' 49-8>4' "B95<' B5' --5'4<B' J=-6"' 9-8"B'
45' C<"5'-7' 4I<J5 4@:' 48?-89' ' A-89&59'A<?5'><==-;S
&">'&" -' =?-8 4' 6& 4' &": 98A &-":' 4<' 45' &">'-7'
;<&"' 6&:45B'7-9';5<A5' 45' W8<995=' 6<:' "-' -' J5' 5L<:S
;59< 5B"' <"B' 9<D5' 6<:' 45957-95' 7-9J&BB5"' Q -' 5" 59'
Q&" -' <" ' -7' 4&:' ;-9 :' -9' 4<C5":!' -9' -7759' C&-=5"A5' -'
Q<" ' -7'4&:' -6":'-9':4&;;&"> @H &9' 9<"A&:'4<B':=&;;5B'
-77';95?< 895= !'5L;5A &">'4-6'&'6-8=B'J5' 5' 4-8>4'
&'=&D5=' 4<' 45' ?5::<>5'6-8=B'J5' :5"' <7 59' 4&?!'<"B'
B5 59?&"5B' -' B-' :-?5 4&">' "-&A5<J=5' J57-95' 45' 6<:'
-C59 <D5"' 5' 6<:' A<8>4' &"' <' ><=5' <' 45' ?-8 4' -7'
45' 4<""5=!' J8' 45' 45=B'-"' &"' :;& 5'-7'& ' "' 45' &< 4'
45' 6<:' -77' &J9<= <9!' 64595' 45' <:A59 <&"5B' 4<' <B&I'
<:' A9-6B5B' 6& 4' 9<":;-9 :' <"B' :-95$:4&;:' 45'
&"-8 4' -7' 45' 4<9J-89' 6<:' "<99-6' 4595' 6595' J< 5S
9&5:' -"' J- 4' :&B5:!' <"B' <"8?J59' -7' ><==5 :' 64&A4'@4<B'
<B<">59-8:'95;8<&-"' 6595' :<&B' -' J5' &"' 45' 4<9J-89'
5' A<==5B' <' A-8"A&=' -7' 6<9' <"B' ;9-;-:5B' -' 98"' &"'
B?&9<=' 899-8>4:' 6<:' =-8B'&"' -;;-:& &-"' 5' 9578:5B'
-' J5' 95:;-":&J=5' 7-9' 45' B<">59' -' 459' (<R5: @:' 7=55 !'
6& 4' 45' - 459' 7-9?8=<:' >5"59<==' 8:5B' &"' :8A4' A<:5:'
4' &"A-?;5 5"' -77&A59:' 9<D5@:' 48?-89!' 4-65C59!'

K 45' -C&"A&=' -' &9' ' 9<D5!' ;9&=N$*N _ =44'5*. $!3
' ' . '

#

*M3, ;9&=

&"75A 5B 45 95: - 7 45 A<; <&":! <"B -" 45 ? -9"&"> -7 45 = 4! 6& 4 < 7=--B &B5 <"B < 7<&9 6&"B! 45 :4&;: : --B &" J5 655" 45 J< 59&5: :&">=5 :4- 4& 45 &-"! <"B 899-8>4:! :55&"> "- 4&"> J57-95 4&? J8 B5: 98A &-"! B9-;;5B 4&: <"A4-9:! 6<9;5B 4&: C5::5= -8 -7 9<">5! <"B B9&7 5B - :5< 6& 4 45 45 5JJ 45 95: 7=56 -" 8"489 45 75==7&9: -" 45 -"= :4&; -7 6<9 &" 45 9-<B:! <=<9>5 ><==5-" 4&: 45 &": <" = :8"D 45 ><==5 : A<?5 -8 ! J8 7=5B < 45 7&9: J9-<B:&B5! <"B 9<D5 J9-8>4 8; -8 -7 :4- 7&@-? 45 :4-95! 6& 4 <J:-=8 5 A-? ?<"B -7 45 4<9J-89 <"B -7 5C59 4&"> 4< 6<: 7=-< &"> &" & 45 A956: -7 45 : -95$:4&;: 7=5B - =<"B! =5<C&"> 45&9 A<9>-5: < 4&: ?59A 4595 6595 ?<" :A-95: -7 45? _ H=<9>5 9--? C5::5=:! :-?5 -7 5 <"B 5C5" C -":_ H=-<B5B 6& 4 6&"5! A-9"! J&:A8& :! B9&5B 798& :! 45 ><9"595B 65<= 4 -7 "B<=8:&<! 64&A4 6<: >-&"> - &:J-" 7-9 45 8:5 -7 45 9?<B< C59 4&"> -7 C<=85 64&A4 A-8=B J5 A-"C5"&5" = ?-C5B 6<: 9<":75995B - 45 ">=&:4 :W8<B9-" 45" 6& 4 45 &B5 < 7=--B 45 6595 :5 -" 7&95! 45&9 A<J=5: 6595 A8 ! <"B 45 6595 =57 - B9&7 8"B59 45 -6" <" 5" <">=5B ?<: -7 J=<I&"> 98&"

45 ;<"&<9B:! :?<9 &"> 8"B59 45 J=-6! 5 A-8=B "- 6& 44-=B 45&9 <B?&9< &-" - 45 A<J<==59-! 64- 6<: J95B - 6<9 <: 45 -AA8;< &-" -7 < >5" =5?<"! 64- 4<B 75B 4&: 7<"A -" 45 9-?<"A5: 64&A4 6595 45 <J-?&"<S &-" -7 -" %8&L- 5@: 4-8:5D55;59! < B<9&"> <A &-" J 64-?:-5C59 B-"5 6<: <" 5LW8&:& 5 B5=&>4 @ - ;9<&:5B @ 6<: 9<D5 7-9 4&: C<=-89 -7 45?! 4< 6595 & "- 45 @ 4< 45 6<: < 8 459<"! 45 <&B! 4595 6<: "- 45 @ =&D5 ?<" &" 45 6 -9=B @ 4&=&; -"5 B< &"C& 5B <=<B -7 45 A-89 - R-&" 4&? &" 4&: J<9>5 -" 45 <D5 -7 5>-C&< H 45 =<B :<&B! @ :45 B<95B "- 98: 459:5=7 -"

K :8;;-:5 5>-C&< 45 95;-9 59 ?595= :< : < =<D5 "- 7<9 79-? (<B9&B

' 45' 6< 59' 5C5"' 6& 4' 4&:' (<R5: !'=5: ' &9' 9<"A&:' 9<D5'
' :4-8=B' 4<C5' 459 H

:' 5 !' 4-65C59!' 45' J-=B' 9-C59' 4<B' ?<B5' J8 ' <' *M3, ;9&=
J5>&""&">' "' 45' 5 :' -7' ;9&=' x (< ' & ' 45' ;<::5B'
-8 ' -7' <B&I' < ' <:' 45' 4<B' 5" 595B!' 45' ><==5 :' 7-=$
=-sC&">' 4&?' J8 ' 5<A4&">' 45' ">=&:4' -' B5:;&:5' 45?'
J ' 45' 755J=5"5:' -7' 45&9' < <AD:' 5' 4<B' <D5"' <'
"8?J59' -7' ;9&:-"59:!' <"B' J57-95' =5<C&">' 45' A-<:!' 45'
:5" ' -' ;9-;-:5' <"' 5LA4<">5' 7-9' :8A4' ">=&:4' :5<?5"' <:'
k 6BB5 5& 459' < ' <B&I' -9' 5C&==5 ' 45' >5"59<=' -7' 45'
><==5 :' 95;=&5B' A-89 5-8:= !'J8 ' 4<B' "-' ;-659' -' A-"S
:5" ' 45' W85:&-"' 6<:' 9575995B' -' 45' (<9W8&:' -7'
KK 981!' < ' &:J-"!' 64-' <":6595B' 4< ' 4595' 6595' "-'
">=&:4' ;9&:-"59:' &"' ;<&"' -7' <" ' D&"B' <"B' <:' 4&:' 6<:'
"- -9&-8:= ' 8" 985!' & ' 6<:' <>955B' &"' 45' 7=55 ' 4< ' <==
45' ;<"&<9B:' 64-?' 45 ' ?&>4 ' <D5' 7-9' 45' 78 895!'
:4-8=B' J5' :-=B' -' 45' (--9:!' <"B' 45' ?-"5 ' 95:59C5B'
7-9' 45' 95B55?&">' :8A4' ">=&:4?5"' <:' ?&>4 ' J5' &"'
A<; &C& ' 5=:5645 95

9-?' <B&I' 45' 7=55 ' :<&=5B' 7-9' <;5' ' #&"A5" !' ;&ADS
&">' 8;' -"' 45&9' 6< ' 795:4' A-"C- :' -7' : -95$C5::5=:!' <==
: 95<?&">' -6<9B:' 45' <>8:!' :-?5'=-<B5B' 6& 4' -<9:' 7-9'
45' ><==5 :!' :-?5' 6& 4' : <C5:' 7-9' A<:D:!' 5"-8>4' -' ?<D5'
4&9 ' 4-8:<"B' 4->:45<B:'<"B' 7<9' <"B' 6&B5' -C59' 45'
5< 9-:5' 45' :?-D5' -7' J89"&">' :4&;:' ' B&C&:&-"' -7' 45'
9?<B<J5&">' 5L;5A 5B' 9-8"B' 79-?' 45' (5B& 599<"5<"!'
9<D5' B5 59?&"5B' -' =&5' "5<9' <;5' ' #&"A5" !' <"B' &7'
;-::&J=5' 7&>4 ' <"' <A &-"' 4595 ' 5' 95W8&95B' 45' 8:5' -7'
45' <"A4-9<>5' < ' <9-!' 64595' 4595' 6<:' < A-"C5"&5" '
< 59&">' ;=<A5!' <"B' 45' J< 59&5:' J5&">' 9-8J=5:-?5!' 45'
;95;<95B' -' =<"B' <"B' B5: 9- ' 45?' 899-8>4:!' 64-:5'
A-6<9B&A5' < ' <B&I' 4<B' J55"' ;<::5B' -C59!' <><&"' &" 59S
;-:5B' 9<D5' --D' "-' "- &A5' -7' 4&?!' :5" ' 4&:' J-< :' -"'
:4-95!' : -9?5B' 45' 7-9 :!' <"B' 4<B' 9-<B: 5<B' <"B' 9&C59

< 4&:J-??<"B 899-8>4:! 5& 459 95<A459-8:-9 5"C&-8:! < 5?;5B -:5"B A-?;=<&" :- ">=<"B -7 &9 9<"A&:@:Q ?=78="5::@ 45<L5<"B J=-AD< < <S >-"&<4<B :456"64< 9<D56<:A<;<J=5-7B-&">-4&:5A-"B&"A-??<"B 4&:&?5?&=B59?554-B::87S 7&A5B 45#&A5$ B?&9<=6<:B5;-:5B" 45 6<:-9B595B -A-":&B59 4&?:5=7<;9&:-"59 &" 4&:-6" A<J&"" <"B 95:5" &"> 45<779-"!-9<79<&B 4<6-9:5?&>4J57<==4&?! 45:=&;;5B<6<<"B 65"4-?5

45;<"&:4:4&;:"-<;;5<9&">"B &?5J5&">;95S A&-8:! 45;-:&&-" <<9-6<:"-=-">?<&" <&"5B 45 7-9:-><==<" = <D5" 6595 5C<A8< 5B! <"B 9<D5 ?-C5B 8;-45?-8 4-7 45<>8:!&" 5"B&">-7*& " -&:J-"<"B ?5<:895:95"> 4 6& 4 <" < 98I&" 4&:-6" B5" 45=&>4=-6">=&:4 79&>< 5:-8:<&=5B 45;-"B59-8:><==5-":! 7= &">9-8"B 45?:5<:&=<:<:5<?59 9-8"B <?-B5?:<&=&">C5::5= "7<&9 6< 59 45 D"56 4<45 A-8=B 5:A<;5 &7 45 7-8"B 4&?:5=7-C59S ?<A45B 45&:J-" 5:8<9 6<:?-B59<5= =<9>5 45 &B5 A-8=B J5 6<A45B! <"B 45 A4<"A5:6595 4<45 9?<B<A-8=B J5 <D5" 8";95;<95B" 45:&B5:-7 45:4&;:J5&">;9-J<J=5"A8?J595B 6& 4=&>4 59:<"B J<9>5:! 45:4&;:45?:5=C5:4<=7?<""5B! <"B 8"<J=5 5& 459-?<D5:<&=-9 7&95<>8"

4<45 ;<"&<9B:6595 &" 5"-9?-8:7-9A5 9<D5 65==D"56 @ 45=&D5;95;<9<&-":6595 "5C59 45<9B @-7 4595 6<:J95<B <"B 6&"5 5"-8>4-755B 7-9 @ 4-8:<"B ?5" 7-9<5<9@J8 45 4&AD59 45 6595 A9-6B5B 45=5::5<:45 6-8=B 7&"B& -?-C5! <"B 45 ?-95 9<;&B= 45 7=<?5:6-8=B B- 45&9 6-9D <?-"> 45? H

K 9<D5 - <=:&">D<?! ;9&=.,! 45 A-" 5?;=< 5B =<"B&">< &:J-"! (< *,! <"B 8"5 . 5""59 - ;594<;:&" 45 4-;5-7 A<8:&">V <=:&">4<?! (< *,_ =44 5*I 9&:&">-7 45 -9 8>85:5

. $!3 9<D5@:6-9B7= &?;= 4<

=-">' 6& 4' 9<D5@:' >5"&8:' 4595' 6<:'&"' 4&?' 45' 89&S
<"' A-"C&A &-"' 4<' 45' 6<:' 7&>4 &">' -"' -B@:' :&B5!' 64&A4'
A95< 5B' :8AA5::' J ' 45'C59 'A-"7&B5"A5' 6& 4' 64&A4' :8AA5::' *M3,
8"5
6<:'<" &A&;< 5B' -65978=<:' 45 '6595!' @ 45' ;<"&<9B:!'
$45':<&B!' @6595' : &==' J8 ':-":'-7' ?-9 <=' ?5"!'7-9' 45' ?-:'
@ ;<9 '5"5?&5:' -' 45' 98 4!'8;4-=B59:'-7' <>-"@:'&?<>5!
@ 64&A4' 4<B' <=95<B '7<==5"' J57-95' 45' 9D''@ :-' =-">' <:'
45&9':4&;:' 6-8=B'7=-<!'<"B' 45 '4<B'7--B' -'5<!'45'<"B'
4&:' ?5"' 6595' 95<B ' -' :< ' -"' 45' A-<:!'<"B' 45' 6<:'
5:;5A&<== '<"L&-8:' 4<' 45' %855"' :4-8=B' <==-6'4&?' -'
B-' :-" @ 45' A-" &"8&">' -' 45' 5"B' &5=B5B' 45' 985'
@ >=-9 '' &7' <""&J<=' 4<B'7-==-65B'4&:'C&A -9&5:'45'6-8=B'
@ "5C59' 4<C5' J55"' <D5"' J ' A&;&-''@ <"B' 645"' ?5"'
@ 4-9-8>4=' J5=&5C5B' 4<' 64<' 45 '6595'B-&">'6<:'&"'
@ B575"A5' -7' 45&9'95=&>&-"' <"B' A-8" 9 !'<' ?59A&78=' -B'
@ 7-9' 49&:@:' :<D5'6-8=B'>&C5' 45?' C&A -9 !'"-9' 6-8=B'
@ < <"' <"B'4&:' ?&"&:59:' ;95C<&=' <><&":' 45? @
"' 4&:' :;&9&' 9<D5'6<:'>-&">' &" -' &:J-"!' C45"'45'
<:'-C59 <D5"' J '-9B59:'=5::';-:& &C5' 4<"' 4-:5'64&A4'45'
=&<B'5:A<;5B' <' = ?-8 4!'J8 '7-9J&BB&">' 4&?' -':9&D5'
B&95A ='<:'45'&" 5"B5B'<' 4&=&;@:'45<9 ' 5'=<'8"B59'
&" 9<!'J89"&">': 5<B&='5C59 4&">' 4<'45'A-8=B'A< A4'
5':5"'&"'<'A4<==5">5' -' <" <' 98I' -'A-?5' -8' <"B'
7&>4'4&?'' <"B'4<C&">' 48:!'6& 4'J8'7-89':?<=='4&;:'-7'
<9'<"B'<'4<"B78=' -7' -"B-"' ;9&C< 559:!'B57&5B'<' 45&9'
-6"'B--9:' 45'8"& 5B' "<C&5:' -7' ;<&"' <"B' -9 8><=!'45'
:<&=5B' 7-9' -98"<' 4595!' --!'45' ?<B5' <' A-?;=5 5'
A=5<9<"A5' -7' 45' 4<9J-89' "' 6-'?-" 4:@ 6-9D!' 4<=7'
45':-95:' 64&A4' 4<B' J55"' <AA8?8=< 5B'7-9' 45' 9?<B<'
4<B' 5& 459' J55"' B5:9- 5B' J '4&?:5=7!'-9':5'-"'7&95' J '
45' ;<"&<9B:' -' ;95C5" ' 45?' 79-?' 7<==&">' &" -' 4&:'
4<"B:' 5' A<=A8=< 5B!' 4-8>4' <:' & ' ;9-C5B' 69-">= !'
4<'<"-459':5<:-"' <'=5<:' 6-8=B' J5' A-":8?5B' &"' 95S
;<&9&">' 45' =-::!' <"B' 4<' ">=<"B!'7-9' 4<' :8??59'
'(6'<8 8?"!'A-8=B'95:' :5A895'-7':6<:&-"

45 ; 8J=&A :59C&A5 4<C&"> J55" 48:<AA- ? ;=&:45B! & 95?<&"5B -4"D -7 45<BC5" 8959: 89" : -95$ C5::5=: &5=B5B : ?<== ;9&I5 ?-"5 ! <"B 45 $6<>5: -7 45 ?5"6 4-4<B :5&65B 45&9A-8" 9 -" 45 A4<"A5 -7 64< 45 A-8=B ?<D5 -7 & ! 4<B &" 95<:-" -J5 A-"S :&B595B <=:- 45 "5&>4J-894--B -7 45 I-95: 6<: 45 J5: A98&:&"> >9-8"B 7-9 :4&;: 6& 4 A<9>-5: -7 C<=85 45 : --B <A9-:: - (&A4<5=@:! <"B 45" &? ?5B&< 5= ! : -=8AD 6<: 45 : <9 -7 9<D5! 45 A<?5 <A9-:: <A<9<AD 79-?' 45 <: "B&5: -: ;=5"B&B= 795&>4 5B! 4< 5C59 A-??-": <&=-9 &" 45 7=55 A-8" 5B 4&: 7-9 8"5 ?<B5 45 6<" 5B "-?-95 & 4 @ 45 @ >95< <" 4&=&;@ &" 45&9 A-?;<" 45 95 89"5B 4<;;&= 4-?5 &" 45 ?&BB=5 -7 45 :8??59 79-?<" 5L;5B& &-" -64&A4 45 "<C<=<""<=: -7 ">=<"B <: 5 -7=7595B "-4&"> 4< A-8=B J5 A-?;<95B 45 ?< 59&<= &"R89 -45 5"5? 4<B J55" 5"-9?-8: 45 B5: 98AS &-" -7 4&: ;95: &>5! 45 A-"7&B5"A5 75= 45"A57-96<9B J 45 ">=&:4 :5<?5"! 45 &": ;&9& &"> -7 45 B5:;<&9&"> -==<"B59:! <"B -7 45 <=?-: 5W8<== B&:45<9 5"5B ?&"&: 59: -7 =&I<J5 4_ 45:5 4<; ; 5775A : 6595 6-9 4 < 45 ?-?5" -9-5: <" ">=<"B! ?-95 4<" < >5"59<= 5"><>5?5" 7-8>4 <"B 6-"

45 5"A-89<>5?5" 6<: ?-95 4<" "55B5B == 4< ">=&:4 5"59> A-8=B B-:877&A5B J<95= -D55;45 J<=<"A5 <><&": 45 6&=B A-89:5: -7 45 %855" 45 6<: 89>5B! J-4 J 89>4=5 <"B <=:&">4<?! -:5"B J<AD 9<D5 < -"A5 -45 I-95:! 6& 4 <" &"A95<:5B 7-9A5 -& " 59A5; 45 "B&<" 95<:895$7=55 H " 459 <9 &7&A&<= &"B&>"< &-" <J-8 45 %855" -7 A-:! :45 04<B 7<==5" J<AD C&A&-8:= E$ -" 459 B5 59?&"< &-" -?<D5 ;5<A5 -" 9-==59 9-7 :4<B ;-::5::&-" -7 459 5<9! ;59:8<B&"> 459 4< 9<D5 4<B 9-JJ5B 459 -7 459 :4<95 -7 ;=8"B59! <"B 7&==&"> 459 ?&"B 6& 4 B95<?: -7 <"

" &$*.'&4.5(*% (I3# .35+'W - =44'5*. $!3 L1X

<99<">5?5" ' 6& 4' ;<&"!' &?;-::&J=5' :<C5'< ' 45' A-:' -7' G
4-"-89

45' A-"B& &-":' 8"B59' 64&A4' ;5<A5' A-8=B' J5' 4<B' 6595' *M3, 8=
"- -9&-8:' <"B' :4<9;= ' =&?& 5B' 4&=&;' 6-8=B' "5C59'
A-"A5B5' 95=&>&-8:' -=59< &-"!' <"B' 45' P"& 5B' 9-C&"A5:'
6-8=B' <>955' -' "-' 59?:' C& 4-8' & ' 45' %855"!' 4595S
7-95!' ?8:' 5& 459' 95<' 7-9' 45?' <><&":' 45&9' C&=:!' <"B'
J5 9<' 45' A<8:5' 64&A4' :45' 4<B' :6-9"' -' B575"B!' -9' :45'
?8:' 95<' :5;<9< 5=' 7-9' 459:5=7!' C4&A4' :45' 4<B' :6-9"'
<=:-' "-' -' B-!' <"B' J8' 95A-"A&=&< &-"' 6& 4' ;<&"' J' 45'
:8995"B59' -7' 45' A<8 &-"<9' -6":' 45' 6-8=B' "-' J5'
<==-65B' -' 95: -95' 45?' -' 45' =-==<"B59:' &7' :45' ?<B5'
<' :5;<9< 5' ;5<A5!' "-9' A-8=B' :45' J5' <==-65B' -' D55;' 45?'
' 6<:' ;=<&"!' &"' 45' "< 895' -7' 45' A<:5!' 4<' 45' 6595'
-' J5' 4<"B5B' -C59' -' 45' 9&"A5' -7' <9?<

45' ?<' "-' 4<C5' <B?& 5B' -' 459:5=7' 4<' :45' A-"S
5?;=< 5B' :8A4' <"' <A' -7' 95<A459' 59' &" 5" &-"' 6<:'
-' 8:5' 45' <BC<" <>5' 64&A4' 45' ;-::5::&-"' -7' 45' D5 :'
-7' 45' :5<' <5:' ><C5' 459!' -' A-?;5= 45?' $-' :8J?&'
-"' 95=&>&-"' 45&9' A-8" 9' C-8=B' 45"' J5' 45&9' -6"!'
8"-AA8;&5B' J' ;<"&:4' 7=55 :' -9' <9?&5:!' <"B' 459' -6"'
:<75' C-8=B' "-' =-">59' J5' 495< 5"5B' 45' 6<:'6<9"5B'
4<' &7' :45' <==-65B' 45' <5:' -' J5' A98:45B!' 45'
A45=B' 6-8=B' J5' -;5"' -' 4&=&;@:' ><==5-":!' <"B' 459'
89"' 6-8=B' &"5C& <J=' 7-==-6' 45' 6-8=B' "-' =&: 5"'
45' 4<B' =5' 4<?;<>"' ;59:8<B5' 459' 4<' 45' "-J=5:'
-7' 45' 5=>&<"' <5:' 6-8=B' "-' ;59?&' 459' -' J5'
&" 597595B' 6& 4' 45' 9578:5B' 5C5"' -' D55;' <"' <9?' '&"'
45' 7&5=B!' 64&=5' 45' 95<' 6<:' >-&">' -"' 45' ><99&:-":'
&"' 45' :5<' -6":' C595' :95"> 45"5B!' =5:' 45' <5:'
:4-8=B' :5&I5' 45?' 7-9' 45' 95:' Q"-4&">' 4<' 4<B' A4<9>5:'
Q 6-8=B' &"' <"' :-9' J5' B&>5:5B@H -9B' 8AD489:' 6<:'
-9B595B' -' 5==' 45' <5:' 4<' 45' ?8:' J5' A-" 5" 5B'
6& 4' :-?5' ?&=B' -=59< &-"!' 64&A4' &"'7<A' 6-8=B' J5' "-"5

45 A-8=B "-A-" &"85 45 6<9J 45?:5=C5:!<"B:45
G A-8=B "-=-">59 45=;' 45? H 45 ;9-?&:5B -'&" 59A5B5
*M3, 6& 4 4&=&;' Q -' 95=5" ' &"' :-?5 A-"C5"&5" ' :-9 !@ <"B
8= -' 95?&"B 4&?' -7 45 ;<A&7&A< &-"' -7 45" ' ' J8 ' :45
:5" ' <9?< 6-9B! 49-8>4 B5 --5! 4<' @:45 6-8=B
@ "-'&":&:' -"' 45 ?< 59 -7 95=&>&-"' 789 459 4<"' :4-8=B
@ J5 6& 4 45 &">@:' 4-"-89 <"B A-":A&5"A5 @H

45 4<B A<=A8=< 5B R8: = ' 4<' 45 < 5:! 4-65C59
B&: 9<A 5B J ' 459 &"R8: &A5! 6-8=B "-' B<95 -' W8<995=
6& 4 459"' J8 ! &"' 5L;5A &">' 5W8<= 7-9J5<9<"A5 79-?'
<9?<! :45 6<:' ?&: <D5"' <= ->5 459 ' <9?< 4<B J55"'
= &">' &"<A &C5 <=:-! 8"B59 -9B59:' 79-?' 4&=&;! <"B :45
&?<>&"5B 4< !;5"B&">' 45 "5>-&< &-":' 64&A4 :45 4<B
95-;5"5B! :45 4<B "-4&">' &? ?5B&< 5 -' 75<9 79-?' 4&&&&'
5 4<B -J <&"5B ;59?&::&-"' -' <D5 <BC<" <>5 -7 459
"5>=&>5"A5! <"B 95 <=&< 5 7-9 <B&I 64595 :45 4<B =<&B
459:5=7-;5"

?-">' 45 ;-9 :' 64&A4$ 6595 ><99&:-"5B J ' 45
">=&:4 6595 :5"B <"B 45 =8 :! <4<9J-89 <' 45
?-8 4 -7 45 A45=B ' "5<9= ' B;;-:& 5 =8:4&">' 45 '
6595 ;-:& &-":' -7"-' ;<9 &A8=<9 &?;-9 <"A5 -' 45 < 5:!
J8 ' -7 45 8 ?-:' ?-?5" ' -' ">=<"B ' 45 ;-::5:S
:&-"' -7 45?' 6-8=B >&C5 <9?< 64<' 45 ?-:' 6<" 5B!
<BB&&-"<= 9--?' -' ;95;<95 4&:' 9<":;-9 :' &7 ">=<"B
6<:' -' J5 &"C<B5B! <"B 45 < 5:' 4<B =57 ' 45&9 B575"A5
-' 4-:5 64-' 6595 ?-:' &" 595: 5B &"' 45&9 :5A89& '
45 ' 6595 45=B J '< 4<"B78= -7 : <9C&">' 9--;:! ?8 &S
"-8:' 7-9 6<" ' -7;< ' 45 7-9 &7&A< &-":' 4<B 7<==5"' -8 '
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%855"' 4<B 9578:5B -' :;5"B ?-"5 ' -"' 45?' ' <"B 645"'
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6 /' P 3 &' &$5 %A/ $ ' /'7&$5 '*3'5 ' && ?' $'7/*%/'
. /.5'# 3'%&"" 3*%. 5 &' /' . '
6 %A/ $ ' &' . *3 /." ' 3 ' &' / 7' / "' 7/.' *@.# /' 7. '
' d$ ' %A/ $ '/.5'/ " 4 3 5&*3

:45 $6<: : <9 =5B J 45 "56:4< <9?< 4<B ;8 4&:
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">=&:4<9?:! J <"<;-=-> 7-9 45 <A&-"<B&I @H

6 /P 3 &% A/ $ 3 !* / %. *"!.*$" /&3& $
1 V / 4. &4 W.(*&3 /.5 .35 /." & $ 4 & $7*
. / ! #*%$(.3 &&# $(/.&3%7. !!& 5# $ /.3
/ $ $&4/ $%&"".35 # /* &&.#.$.*3 4&$ /./.35*3 ?
5*5 3& .(%A/ $ .35. / / 6 3 $ %*&3 &/ / .$&4 *;
35 &4 / &44*%*. $!$*".35 / % $ 3.+$F+ - =44 *88'()
.55 5*3/ $&73/.35 M=.$".7. &#&5 /. / /
B /7*/5 !*$ / ". $ P 3/.5 3.3 >!$ .4 $
/.3 7*/ & /. &7.D 5 " 3 & W$.A & 5/*"'5&'3&/.$"' &/

G

+E-H
8 " 5

45 95 ; = - 7 <9 ? < 6 <: - 5L ; 95 : : 4&: 6&==&">"5 : :
- 95A5&C5 A - ? ?&: : &- "59 :! J8 - 9578 : 5 <" <9 ?&: &A5!
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; 5< &">" 45 : 9< 5> 64&A4 4<B A98 : 45B " 659 ; !/ 45
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J5 @ <"B : 45 J<B5 4&?: 5"B - 9B59: - 5&A5 : 59 -
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Q 45 5775A ? &>4 J5 : - =<9>5 <"B B<">59 - 8 : '@ J8
45 A - "A=8B5B! 6& 4 < : &>4! 4< @=-9B : <"B =<B&5 : A - ?$
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7 4&: - 9B59 B&B " - A<8 : 5 45 =- : : - 7 =8 : ! & 6<:
J5A<8 : 5 & : 7< 5 6<: : 5<=5B <=95<B 45 ><99&: - " 4<B

: *3 &4 ! . *3J / " 3 $ / . 5
3 A ! 4$&" 4*35*3 / *" # %&3;
$. $ 7*35 J . 35 / / . 5 / . $5 / .
%&3 $. $ & / $ &$5 $ / / . 5 . ;
" ! 5 &" /*3 4&$ 7 / *%/ /
7& 5 %. / *" & . / . $! . %%& 3
< + 7 8 2 ' ( ) *6$ $*') ** '
8 " 5 = 44 8' ( )
" B <><&" _

I @ (" * @
' ?" (" "
D @" "
" 4("@ @
" ' ?" ((" " (A
" " @ J : "!5 =
* (+-0, -!
6 $ / & . *3 / . "
+G0, G! = = 44 5 * . $!3

?<B5' ?-95' 4<"' -"5' B5: 98A &C5' :<== !' J8 ' 45 ' A-8=B' -' B9&C5' <9?<' 79-?' 4&:' 95"A45:' "' 45' = 4_ = 4' -7' 8= !' <7 59'<':5C595' J-?J<9B?5" !' 4955' :4<9;'<::<8= :' 595' ?<B5' &"' &?? 5B&< 5' :8AA5::&-" ' 6-' 4-8:<"B' ;<"&<9B:'75==' J8 ' 45' ">=&:4!'<:' 45&9'"8?J59:' 4&""5B!' 6595' B9&C5"' J<AD' 79-?' B575"A5' -' B575"A5' <9?<' A<;S 895B' <' 7-9 ' 64&A4' A-??<"B5B' -"5' -7' 45' >< 5:!' <"B' 8"=5::' 95=&5C5B' 79-?' 6& 4-8 ' & ' J5A<?5' 5C&B5" ' 4<' 45' -6"' ?8:' 7<==' 45' <5:' 5"59<=' B5A=&"5B' <' 7&9:' -' ?<D5' <" ' 577-9 ' < ' <==' "' <":659' -' <;;5<=:' 79-?' 5&A5: 59!' 45 ' 95;=&5B!' 4<' ⍰459' (<R5: ' :-8>4 ' J8 ' -' ⍰6-9D' 459' -6"' ;9-7& ' J ' <' ;9&C< 5' ;5<A5!' <"B' 9< 459' ' J8&@B5"5B' 45?' 6& 4' 459' ;5-;=5' 4<"' B&B' 45?' >--B @ ⅈH P=&?< 5= '<' J5 59' :;&9& ' ;95C<&=5B' -"' :5A-"B' 4-8>4 :!' 45 '><C5' 4&?' 45' 8:5' -7' 45&9'7=55 " <"B' 6& 4' 45' 45=;' -7& ' 45' ;95;<95B' < ' =<: ' -' ?<D5' <' >95< ' 577-9 ' J ' :5< <"B' =<"B' -' 9<&:5' 45' :&5>5

5:;<&9&">' :&>"<=:' 4<B' J55"' :55"' -"' 45' 5?9B' x 8S >8: ' 5 '' 7&C5' 48"B95B' -7' 45' ><99&:-"' 4<B' J55"' D&==5B!' P&<" ' -7' 45' 95: ' 6595' 6-8"B5B!' <"B' <9?<@:' <9? ' 6<:' &=' 65=C5' 4-8:<"B' : 9-">' 5&A5: 59@:' ">=&:4' A-?S ;<"&5:' 6595' 9<":;-9 5B' J ' :5<' -' : 5"B' <"B' -"' 45' 57 4' &9' &==&<?' 5=4<?!' -9B' &==-8>4J !' <"B' &9' &==&<?' 8::5==!' 6& 4'7-89' 4-8:<"B'7--' <"B'7-89' 48"$' f&95B'4-9:5!' ⍰<:'95:-=8 5' ?5"'<:'5C59' A<?5' -' 45' 7&5=B!@' P<9A45B' <=-">' 45' A-<:' 7-9' =8 :' 45 ' 6595' -' : <AD' <9?<@:' ;-:&&-"' 79-?' J54&"B!' 64&=5' 5&A5: 59!' &4' -8" ' (<89&A5!' <"B' 4&:' 4<=7$J9-459' 45' B?&9<=' 595' -' < 5?;' 45' J9&B>5' 79-?' 45' :5<' 45' =<"B' 7-9A5' <7 59' ;<::&">' =<"D5"J89>' 7-8"B' 4<' 45 ' A-8=B' <BC<"A5' "-'789 459"' 45&9'6< '=< ' <=-">'<"<99-6'A<8:5S 6< !' J9-D5"'&"' :5C59<=' ;=<A5:!' -AA8;&5B' <' &" 59C<=:' J ' 45' ;<"&<9B:!' <"B' :65;' J ' A<""-" ' -??8"&A< &-":' 595' 5LA4<">5B' 6& 4' 45' 7=55 ' ' 6<:' <' 4&>4!':;9&">

- - - =

*M3, 8=

&B5 && K5$:4&;: 6595 95<B - J89: <" -;5"&"> 49-8>4 45 J9&B>5 -7 J-< :! <"B 45 =8:4&">: :5<?5" 6595 6&==&">" <"B 5<>59 -" >-" &" 8 (<89&A5 B5A=&"5B 45 9&:D 8"=5::" <=<"B < <AD A-8=B J5 ?<B5 :&?8= <"5-8:= ! <"B 5&A5: 59 :&>"<==5B -" 45 <9? -" >-" 4<AD -" :5"B! 95$5?J<9D! <"B R-&" 4&?" -" 45 6< 59 6-" B< :" 6595 48:" 6<: 5B 45"" 45 <99&C5B 45 7-8"B <A-8"A&= -7 6<9 B5J< &">" 645 459 -" ?<D5 <" 577-9 -9 "-! 45 8 A4 -77&A59:" 45:& < &">" -" C5" 895 45&9 :4&;:! <"B 5&A5: 59! J=< <" <"B 8">-C59"<J=5! / <8" &">" -8" (<89&A5 6& 4 A-6<9B&A5 -" 95:-=8 &-" 6<:" <99&C5B < ! 7-9 "-"5 8"4<;;&= 6<:" "5A5::<9 <9?<! :55&">" 45?" = &">" -8 :&B5! B5 59?&"5B -" J9&">" ?< 59:" -" < A9&:&:H J57-95 45 &" 597595B 6& 4 4&?" 5 -77595B 59?:" -" 45 ><99&:-"! 6& 4 45 <= 59"< &C5 -7 <" &??5B&< 5 <::<8=! 64&A4 45 D"56 4< 45 A-8=B "-" 95:&: 45&9 79&5"B:" :55?5B 8"<J=5 -" 45=;" 45?" 45 :89S 95"B595B! <"B =8 :" 6<:"=-:

6<:" B&:A-C595B! 79-?" <" &" 59A5; 5B =5 59 -7 <9S ?<! 4< 45 :&5>5 4<B A-: 4&?" J5 655" 7&C5 <"B :&L 4-8:<"B -7 4&:" J5: 9--;:! 6& 4 7-9 $7&C5 -77&A59: 45 :D&=" 6& 4 64&A4 45 B575"A5 4<B J55" A-"B8A 5B 4<B :-: 98AD 4&?" 4< 45 4<B! <:" 45 <B?& 5B! 9&5B 45 C&9 85 -7 &9 ->59 &==&<?:" 64-" 4<B J55" 45 :-8= -7& ! <"B 4<B ?<B5 4&?" =&J59<= -7759:" &7 45 6-8=B 5" 59 4&=&;@:" :59C&A5 5 A-"75::5B 4< 45 4<B 5" &95= 7<&=5B 6<:" A4<9<A 59&: &A -7 5&A5: 59 4< 45 < -"A5 @A-"$ @A5&C5B >95< R5<=-8: -7 &==&<?:!@;59:5A8 5B 4&?" 6& 4 A<=8?"&5:!<"B < 5?; 5B -" B9&C5 4&?" -8 -7 45 :59C&A5 @ 45 9&"A5 -7 <9?<!@ :<&B &==&<?:" ;9-8B=! 645"" B9&C5"" -" B575"B 4&?:5=7! @4<B ?<B5 4&?" >95< -7759:" -7 @A-89 5: 5 4<B "-" <:D5B 4&?" -" J5<9 <9?:" <><&&&: @4&:" -6"" A-8" 9 ! J8 -" :59C5 <><&": 45 89D 5 @4<B 95;=&5B 4< 4&:" :6-9B 6<:" 7&9: -" :59C5 459 (<$ @R5: !<"B 45"" 45 &">" -7 <C<995 <"B -" 45 &">

@ -7' <C<995!' &7' B&:>9<A5B' <?-">' 4&:' -6"' ;5-;=5!' 45'
@ ?5<" ' -'>- @H
45' =-::' -7'<' ;=<A5' -7':-' ?8A4' A-":5W85"A5' -' 459'<>S
>9<C< 5B' 45' &==$755=&">' -7' 45' %855"' -6<9B:' 45' <5:'
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45?' 5&A5: 59"' <"B' 45 '4<B' "-'=&7 5B'<'7&">59' -'45=;'
459'&"'95 89" ' 45&9' &">9< & 8B5' 6<:' ?-": 9-8:!' <"B'
459' B&:>W: ' < ' 459' A-""5L&-"' 6& 4' 45?' 6<:' C5" 5B'
P;-" 459'-6"' ?&:59<J=5' 9--;:' <9?<!' 64&=5': &==';9-S
75::&">' -' "5>-&< 5!' 6<:' 957&==&">' 4&:' 9<"D:' 59?<"!'
;<"&:4!' <=&<"' A-?;<"&5:' 6595' ;-89&">' &"' -' 4&?'
&58;-9' <"B' 8"D&9D' 6595' <=95<B' 7&==5B' $6& 4' 48=D:'
0'<"B' J<9>5:!' <"B' "-6' <' 4&9B' &?;-9 <"' 4<9J-89' 6<:' <'
4&:' B&:;-:& &-"' "' 45'-459'4<"B!' 45'95?<&":'-7' 45'
9&>&"<=' ">=&:4' <9?' 4<B' J55"' "-6' 6& 4-8' ;<'7-9'<'
5<9' 45'><99&:-"' <' =8:4&">' 6<:' @"<D5B' <"B':<9C$'
Q&">!' =&D5' -';59&:4' 7-9' 6<"' -7' A=- 45:' -' A-C59' 45?@H
@ 45' %855"' J5&">' 5<9"5: =' ?-C5B' -' :5"B' ?-"5'7-9'
@ 45&9'95=&57!'<":6595B';595?;-9&=' 4<' :45'6-8=B':5"B'
@"-'?-95'?-"5 @H @ 45'=<:'A-?;<"&5:'@ 4<'4<B'>-"5'
C59'6& 4' 5&A5: 59' 6595' 7=-AD&">' J<AD' -' ">=<"B' @&"'
@=<?5" <J=5' A<:5i' 45' 4<B' 95A5&C5B' "-';<'<'<==
g45&9'-77&A59:!'8"<J=5' -':8;;-9':-=B&59:'<' 45&9-6"'A-:!'
4<B' B&:<9?5B!' B&:J<"B5B!' <"B' :5"' 45?'<6<!' 6& 4-8'
7--B!' ?-"5 !'-9';<::;-9' 4&9 '-7' 45'9<>>5B'695 A45:'
95:5" 5B' 45?:5=C5:'&"' ?8 5!';9-5:'<' 45';<=<A5$>< 5'
H' 5: ?&": 59' 45' -8"A&=!' @ -';95C5"' - 459:'79-?'
@A-?&">' -' -89' -'-7&5"B'459' (<R5: !@B&:?&::5B' 45?'
(9&4 :4<9;' :;55A45:!' <"B' 495< 5"5B' 45?' 6& 4' 45'
:-AD:" J8' --'<6<95'-7' 4`R8: &A5'-7' 45&9'A-?;=<&" :

K P=-8>=&J ' -' <=:&">4<&"!' 8'()
!8=' 1F' 55B4<?' -' <=:&">J<?!' K AA-8":' 79-?' =8:4&">!' A '
8=' F1' &9' ?' 5=4<?' -' B8. ,'1<=44' :!)'
'H89>4=5 !' 8=' 55B4<?' -' K 89>4=5' -' 5&A5: 59!' -C'2$'
<=:&">4<8&!' 8>'!9 < =44'=*8D *2!_ =44' !)

9LLC

*M3, 8>8:

89>4=5 ' <"B - 459:' 9<&:5B' ; 89:5' <? -"> 45?:5=C5:' -' A<99 ' 45?' J<AD' -' 45&9' 4-?5:'H

4&=5' <9?' >956' B<&= ': 9-">59!' =&I<J5 4' 6<:' B5=&S J59< 5= ' B&:<9?&">' 459:5=7' 45' 6-8=B' 45<9' -7' "- 4&">' J8 ' ;5<A5' 5<A5' &"B55B!' <:' &9' &==&<?' 5=4<?' :<&B!' 6<:' J5A-?&">' ?-:' "5A5::<9 !' &7' 4&:' 6<:' -' J5' 459' 6< ' -7' ?<D&">' 6<9 9' 5 59' &"' ? ' -;&"&-"!9 45' :<&B!' 9':<C5' 45' 95;8 < &-"' -7' 9' -89' A-8" 9 'J 'D"& &">'8;' :-?5' A-"B& &-":' 64&A4' ?&>4 ' 9':4<B-6' -89' 65<D"5::!' 9< 459' 4<"' J5' 45' :A-9"' -7' <=' 9"< &-":9H 5<A5é J8 ' -"' 64<' 59?:!' <"B' 7-9' 64-?i' =&I<J5 4' B5"&5B' ;595?; -9&=' 4<' :45' ?5<"' -' ?<D5' <' ;9&C< 5' ;5<A5' 7-9' 459:5=7' 45' A<==5B' &' <' 6&AD5B' <"BK' B5C&=&:4' :=<"B59' 45' A4<9>5B' 45' < 5:' 6& 4' &">9< &S 8B5' 7-9' :8:;5A &">' 459' -7':8A4' <"' &" 5" &-"'H' J8 ' :45' :<&B!' <' 45' :<?5' &?5!' 4<' 45 ' 4<B' ?<B5' ;5<A5' "5A5:S :<9 'J 'J5 9< &">' =8 :!' <"B' :45' 95W8&95B' 45&9' A-":5" ' 45' < 5:' <":6595B' 4<' 45 ' B&B' "-' 6&:4' 7-9' ;5<A5' 45 ' A-8=B' B575"B' 45?:5=C5:' 7-9' 5"' 5<9:' =-">59!' 5C5"' &7' =57' <=-"5' 45 ' B&B' "-' <:D' 7-9' 789 459' 45=;K' 45 ' 6<" 5B' -"= ' -' 4<C5' 45&9' -6":'95: -95B' -' 45?EK' 45' %855"' 4<B' J8 ' -' <D5' 45?' < ' 45&9' 6-9B!' <"B' :45' ?&>4 ' 4<C5' =57' 45?!' &7' "-' >5"59-8:= !' 5 ' 6& 4-8 ' B&:4-"-89" J8 ' 459' -6"' ;9-:;5A :' 95W8&95B' 4<' :45' :4-8=B' D55;' 45' -6":' -' ?<D5' 459' -6"' J<9><&"' 6& 4 ' 9-7 :!' 6& 4' 4&:' 95<A459-8:' A-8":5=:!' <=-"5' B&95A 5B' 459' 89>4=5 ' -=B' 4&?!' <"B' :-' -=B' 4&?' 4<' 4&:' 6-9B:' ?&>4 ' 95<A4' 4&:' ?&: 95::!' 9 4-6' B<">59-8:' 459' 9;9-A55B&">:' 6595' -' 98"' < A-" 9<9 ' A-89:5' &"' 45' ;95$' 9:5"A5-7' 45'5"5? 9 9 ' 4&"D!9 45' 69- 5' -' <=:&">4<9-! 9? ' :4<9;' 6-9B:' 6&==' -775"B"' J8 ' ' <?' :-' A4<75B' 4<'

89>4=5 ' -' 5&A5: 59!' -C ' 2$' !4 < =44 ' *88'() ' V &9' &==&<?' 5=4<?' -' <=:&">$' 4<?!' 8>' !9 d = 44 ' :!) ' K' =&I<J5 4' -' 45' < 5:' -7' -&$

=<"B' <"B' T5<=<"B!' 5; !' <-!' <"B' A-" $' ;<95' -C ', _ &=7 D u' "&C5 ' -' <=:&">4<?!' 5; E FM _ :!)

#

&*M3, &O! . %+0"

Ø A<" "- ' 4-=B' ? ' ;5<A5' ' 75<9' "- 4&">' ?-95' 4<"' 4<' Ø 459' (<R5: ' J ' 459' -6"' A-=B"5:' <"B' 5?;-9&:&">' :4<=' Ø J5' 7-9A5B' -' :&">' <"B' ;8 H9<?' 45' 6&=' 49-6' & ' Ø 8;-"' :-?5' -7' 8:" J8' 4595&"' ' 6&=' 4<C5' <7-95' -B' <' Ø A=5<9' A-": A&5"A5' 5' 45' ?&:A4&57' 6&=' >-' 7-96<&$B' ' Ê H4<C5' "-' 4-;5' -' 4<C5' ? ' <BC&A5' <=-65B Ø H

5?? 5B' 9-8"B' J ' 4<9B' A-"B& &-": !' :45' 6<:' 8?C&=$' &8>' -' 5"A-8" 59' B&:4-"-89" Ê5 ' :45' 6<:' B5 59?&"5B' P;-"' <"' -JR5A' 64&A4' 6<:' "-' -' J5' 4<B' :<C5' <' 45' ;9&A5' -7' B&:4-"-89' 45' A-8=B' 4<C5' ;5<A5' 7-9' 459:5=7' J ' :8995"B59&">' 45' -6":' -' 4&=&;!' -9' :45' A-8=B' 95S : -95' 45' -6":' -' 45' < 5:!'<"B' 95<' -"' <7<&9' 7-- &">' 7-9' :8A4' 59?:' <:' :45' A-8=B' -J <&"' 6& 4-8' 45?' 45' 7&9:' A-89:5' 6<:' &"7<?-8:!' 45' :5A-"B' 7-975& 5B' 459' <BS C<" <>5' ' <"B' :45' 6&:45B!' 45957-95!' -' A-?;5=' 45' -=S =<"B59:' -' <D5' ;<9' &"' <' 95<' 64&A4' 45' <J4-995B!' <"B' -' 954"W8&:4' 45' -"5' -JR5A' 7-9' 64&A4' 45' 4<B' 7-8>4' :-' ><==<" = !' 6=&&=5' :45' -J <&"5B' 7-9' 459:5=7!' <' 45&9' A-: !' 45' :5A89& ' 64&A4' :45' A-C5 5B

=-8"B59&">' &"' 459' 5?J<99<::?5" :!' :45' ?<B5' <795:4' < 5?;' -"' <9?<@:' =- <= ' 45' :8>>5: 5B' <><&"' 4<!' Ø A-":&B59&">' 45' 4<9B' ?5<:895' 4<' 45' <"B' 4&:' 7< 459' 4<B' Q 95A5&C5B' 79-?' 45' &">' -7' ;<&"!@ 45' :4-8=B' <D5' 45' 9-C&"A5:' 7-9' 4&?:5=7!' <"B' J5A-?5' 8D5' -7' 89>8"B H' &"B&">' "-' 5"A-89<>5?5" ' 4&:' 6<!' :45' :5" ' 59J59!

H 89>4=5' -' <=:&">4<?!' 5;' K$&&!' 5;' N$*N _ =44T'5*. $!3 @' G &:' 4-"-89' 6&:45B' ?5' -' 5=-' -8' =&<' 45' 6-8=B' EJ5' U>=<B' -' 45<9' 79-?' -8!'&"' <":659' -' 4<' 45' A-?$' 4<"B5B' R"5' -' 69& 5' -' -8!' 64&A4' <:' <J-8' <"' -C59 895' -9' ?-&-"' 45' 6&:45B' -8' -' ?<D5' -' 45' 9&"A5' 4595!' 4<' 459' (<R5: ' 6-8=B' 6&:4' 4&?' -' ;9-C&B5' 7-9' 4&?:5=7!' &"' <D&">' ;-::5:&-"' -7' 4-:5' A-8" 9&5:!' A-"$:&B59&">' 45' 4<9B' ?5<:895' 4<' J-4' 4&:' 7< 459' <"B' 4&?:5=7' 4<B' <=6<:' 95A5&C5B' <' 45' &">' -7' ;<&"@:' 4<"B:' 59' (<R5: ' A-8=B' 7<9' J5 59' 5"B895' 4&?' <:' 8D5' -7' 89>8"B ' <"B' 459' "5&>4J-89' 4595' 4<"' <' &">' -7' ;<&"!' &"' 64&A4' D&"B' -7' 95< ' 45' :4-8=B' 7&"B' 459' (<R5: ' :-' 65=-' B&:;-:5B' <:' 45' A-8=B' 6&:4 @_ '1D . ($' ()*)' @' = ' $*' ' 5;' *3!' *M3, @ = 44 *# ' ( ) PP

45 (<: 59 -7 5W85: :! - 45 < 5:! 6& 4 < 7-9?<=
&" &?< &-"' 4< ; <&"' 4<B =-"> J55"' ?<D&"> -C59 895:' -
KMK A -J59 459 7-9 <"' <99<">5?5" ! 4< : :45 4<B B5=< 5B 459 95;= !
(4-;&"> -' J5 <::895B -7 45&9 >--B 6&==' J8 ' 4< : :45
A-8=B " - ' <:' < 49&: &<"' ;9&"A5 4-=B J<AD =-">59 ' 45
&" 5"B5B -' :5"B -?? &::&-"59:' -' 95>! '6& 4 45 9&"A5!
0<"B :45 &"C& 5B 45?' -' "<?5 -?? &::&-"59:' <=:-! 6& 4
< ;9-?&:5 4< ' 45&9 :895 ' :4-8=B J5 <:' 65==' ;9-C&B5B
7-9 <:' 459 -6" H 5 --5! < ' 45 :<?5 &?5! 6<:' B&95A 5B
-' 5==' 45 9&"A5 4< ' -??&::&-"59:' 6595 A-?&">' &?S
?5B&< 5= ! -' <:D <><&"' 7-9 <"' <9?&: &A5! <"B -' 95W85: '
'<=:-' <"' 5"><>5?5" ' 4< ! ;5"B&">û 45 "5>- &< &-":! 45
&:J-"' 7=55 ' :4-8=B ?<D5 "-' < <AD -"' ">=<"B H
&9 <?5:' 9-7 :! 45 &"C5" -9 -7 45 ?&:A4&57 ' -9B
59J ! -9B -J4<?! <"B <' A&C&=&<"' 9 ' #<=5" &"5
<=5! 6595 "<?5B! <"B 6<& 5B -"= ' 7-9 45 <": 659 -7
45 < 5:! -' A9-::' -' : 5"B ' ' ?5?-9<"B8?' 6<:'
<BB95::5B -' -9B 59J ! ;9-J<J= ' J ' 5A&=! ;-&" &">'
-8 ' &"' 64< ' 6< ' 45 A-8=B J5: ' "58 9<=&:5' 45 &==' 5&75A :'
-7 45 6-9D 64&A4 45 6<:' :5 ' -' B- ' "7&"& 5 B<">59!
45 69& 59 :<&B! 6<:' -' J5 =--D5B 7-9! "- ' -"= '79-?' 45
; 5<A5 & :5=7! J8 ' 79-?' 45 J<95 ?5" &-"' -7 & 45
;<"&<9B:' 4<B 95A5&C5B >95< ' ;9-C-A< &-"' 79-?' ">
=<"B ' 45 ' 6595 ;95;<95B 7-9 6<9! <"B 4<B 5C59 '
?-&C5 -' ;89:85 & ' ' 6<:' "< 89<= 4< ' 45 ' :4-8=B
<=D -R7 ;5<A5! 4< ' 45 ' ?&>4 ' <D5 45 %855"' < ' < B&:S
<BC<" <>5 ' 4595 6<:' "-' ;9-J<J&=& ' 4< ' 45 ' 6595
:&"A595! <"B 45 %855"@:' 95:--8 &-"' -' ?<D5 ;5<A5 6< '
&"' 5C59 ' 6< ' -' J5 B5;=-95B ' &"A5! 4-65C59! 459
(<R5: ' A4-:5 -' 4<C5 & ' :-! <:' < =<B ' 8"<; ' 7-9

45 &": 98A &-":' -' 59J59 ! <:' 7955B-?' -7 45&9 A-":A&5"A5:' &"' ?< S
-9&R&&"<= ' B9<6"! A-" <&"5B -"= ' 45 59:' -7 95=&>&-" < = . * !'8 !*
:&?;=5 6-9B :895 5A&=! 5C59 -"' D: $' 3$'!9D99 ' =44 ' 8*88'$$)
45 6< A4! <BB:' &"' 4&:' -6"' 4<"B ' K 89>4=5 ' -' B5 --5! A '& /'
- 4'&"' 45&9 <"A5" ' =&J59 &5:' <"B 1M!_ =44 ' 8'( )

,
#

*M3,
G+,4 ; 4

K (5?-9 ?B89<' -' 45' <9=' -7' K0 89>4=5 ' -' 5&A5: 59!' -C ' 2$'
459J !' -C9' K,$ 5A' ,' _ ' = 44 ' $; d = 44 ' :!)
1B'!!!' J9&B>5B! f 5&A5: 59' -' 89>4=5 !' -C ' *,$'
K 5&A5: 59' -' =&I<J5 4!' -C ' M$' X@ < = 44 ' :!)
14< = 44 ' *88'()

5>59"E-59

6-8=B -"= J5 J&: B&:>9<A5 & &5 4<B "- 4&"> -=--D & -J8 7<?&"5! ?8 &" !<"B 95<:-"'& <"B & 45 ;9< 5B & 4< !&7'& 6<: ;-::&J=5! 45 A8;' ?&>4 ;<::'79-?'4&? @H 8 45 75<9 4< &7' 45 9578:5B! :-?5 A< <: 9-;45 ?&>4 -C59 <D5 45 ?&:59<J=5 <9? !-C59A<?5 4&:' 95:-=8 &-"! <"B 45 95?<&"5B <:' 5"59<=-7 45 ">=&:4 A-" &">5" ! J5&">' B&:A4<9>5B -7 <==A-""5L&-"' 6& 4 45 >-C59"?5" -7 45 A-8" 9 =B5>-4B5 ?<B5 -"5 ?-95 ;<:S :&-"< 5<;;5<= -' 45%855" 45 <5:! 45:<&B! B5:&95B ;5<A5 <:' ?8A4 <:' :45! &7 -"= 45 A-8=B 4<C5 <>--B ;5<A5 J8 ;5<A5 ;<A45B 8;' 6& 4-8 :5A89& 7-9 95=&S >&-"' 6-8=B J5 98&"' -' ">=<"B<:' 65== <:' -' 45?' -9B &==-8>4J 5L;95::5B <75<9 4< 8"=5::' :45 ?-S B59< 5B 459 -"5! 45 <5:' ?&>4 95<== <"B 98=7 ?<D5 45&9 -6"' 59?:' -4&">' 6-8=B ?-C5 459' =59J59' 6<:' 95A<==5B! <"B -"' 45 &: ' -7 5J98<9 !:45 :5"' 459 8= &?< 8?' 59 -??&::&-"59:! :45 :<&B! A-8=B 6<&' "-'=-">59! <"B 6595 <J-8 -':<&=7-9 :5"B 45 4<B B5:&95B "-4&">' J8 45 >--B -7 45 <5:! <:' 45j 6-8=B 4<C5 :55"' &7 45 4<B "-' J55"' J=&"B5B! 6& 4;<:S :&-"' -9 45 =<: &?5 :45 95W8&95B 45?' -':5"B 95;95:5" <&C5:' -'<A 6& 4 459 -6"! <"B :45 ;9-?&:5B -'4<C5 :;5A&<=A<95 -7 45&9 &" 595: H

5J' &$&&

(5<"64&=5 A-"78:&-"' -7 ;89;-:5! 5W8<= <=?-:' $* =&I<J5 4@:' ;59C59:5"5::! 6<:' B&: 9<A &"> 45 A-8":5=:' -7 45 <4-=&A:! <"B :45 4<B <:<8"A4 79&5"B 6459f' :45 4<B =5<:' 9&>4 -'=--D 7-9 -"5' ?-"> 45 A-"B-E &-":' "5A5::<9 7-9 <:8AA5::78=&"C<:&-"! 6<:' 45 A-$-;:E 9< &-"' -9 45 "58 9<=& -7 9<"A5! <"B 8" &= 45 <4-=&AH "-J=5:' 6595 :9-">' 5"-8>4 -' A-59A5 45 4-8:5 -7 #<S =-&:! -9 8" &= < <4-=&A 95C-=8 &-"' 4<B ;=<A5B <"- 45&

E &==-8>4J -' <=:&">4<?! K 45%855"' -' 59J59! 5J' $ -C' &1$K1' <"B 5A! 3$R3 _ =&44' ** _ =44' :!)

=*#((38

B "<: ' -"' 45' 49-"5!' <' 89-;5<"' 6<9' =< ' J5 655"
4&=&;' <"B' 4&:' ;89;-:5!'&"' <BB&&-"' -' 4&:' - 459' B&77&A8=$' $$$$$
&5:' 45' &">!' 6& 4' ?-95' <B9-&"5::' 4<"' A-8=B' 4<C5' -C5?&
J55"' 5L;5A 5B' -7' 4&?!'4<B':-'7<9'A9&;;=5B' 45' <A&-"' -7' 45'
-=' 5<>85' P"<J=5' -' -;;-:5'&!' 45' 4<B' ;=<A5B' 4&?S
:5=7'<'&:' 45<B!'<"B'<::8?5B' 45' B&95A&-"' -7'&:'<9?&5:
45' 85' B5' - 58:5!' 64-?' 45' :5"' -' A-??<"B'&"'
45' :-8 4!' 6<:' B575< 5B' <' -8 9<:' J' 45' &">' -7' <S
C<995' <:&?&9' <"B' 45' 8D5' -7' <L-"' 4<B' A-?5' -'
45' 45=;' -7' 45' 8>85"-:'&"' 45' "-9 4$5<:!' 6& 4' 65" '
4-8:<"B' 59?<":' =&I<J5 4' 4<B'&" 59;-:5B' 459'>--B'
-77&A5:!' J8' =&5"9' 4<B' B5A=&"5B' J-4' 459' <::&: <"A5' <"B'
459' ?5B&<&-"' 5' --D' 45' 7&5=B' 4&?:5=7' -' -;;-:5'
45?!' B5=&J59< 5=' >&C&">' 45?' -;;-9 8"&&5:' -' B575<'
4&?' =R5"' 45' 6-8=B'"-'8:5' 45?!'45'75==' J<AD' 8;-"'
45' -&95!'=5<C&">' -99<&"5'<"B' 89>8"B' -;5"' -' 45?'
-' -C5998"' <"B' B5: 9- ' <"B' 4<B' 45' A-?;9545"B5B'
4&:' -JR5A!' <"B' ;-::5::5B!' <:' 45' :<&B' 4&?:5=7!' 5& 459'
Q C<=-89' -9' B&:A95&-"!@ 45 Q ?&>4' 4<C5' J9-8>4' 45'
5<>85' 8;-"' & :' D"55:' P"7-9 8"< 5=' 45' 7-==-65B'
4&?'&" -' 45' 45<9'-7' 9<"A5!' 6& 4' 8&:5' J54&"B' 45?!'
<"B!' :48'&"' J5 655"' 6-' <9?&5:!' 45' 6595' 7-9A5B' -'
A<;& 8=< 5 H' mmmmmmmmmmmmmmmmmmmmmm

K &9' B6<9B' <77-9B'>&C5:'<?-:' D"-6"!' -' <' 4-8:5' 4&"D' A<"'
A89&-8:'5L;=<"<&-"'-7' 4&:'A<?;<&>"!' >85::'<'<><&"' 4-8>4'&'6595' "&>4!'
<:'&'6<:' -=B' 4&?'J' 45' &">'4&?S <"B' 45' J9-8>4' ?5' 7<9' -8'-7' 45'
:5=7' &:'=5 59' 49-6:':&">8=<9'=&>4' 9&>4' 6<' -' &!' 64595' '7-8"B' "-S
-"' 5"9@:' A4<9<A 59!' <"B' :456:' J-B'&"' 45' A4<?J59' J8' 45' &">'
?-">-459' 4&">:'4-6'985'<79&5"B' 4&?:5=7' "' 45'4-8:5' '45<9B'7-=D:!'
=&I<J5 4' 6<:' 7&"B&">'&"' 4&?' ' J8'"-J-B':<6'?5!"-9':<6'"-J-B!'
H<:'&"' A&;459!' <BB95::5B' -' =&I<S 7-9'45' 4<'J9-8>4'?5' <?5B'"-'&"'
J5 4' 459:5=7!' <"B' A<99&5:'-"' 45' ?<9S 45'A4<?J59' 5'J5><"'6&4'?5' 4<'
>&"' ?<"' -7' 459' ;5A8=&<9' ?<9D:' 45' 4<B' :5"'7-9' ?5' 8;-"' 45' 98:'
k 4B5 4&:'-9' 4<' ;<::<>5: 98AD' <"B' A-"7&B5"A5'45'4<B'&"' ?5!'<"B'&"'
459 45'7<& 478=' <::89<"A5' 4<B' >&C5"'
G (<'&';=5<:5' -89' (<R5: !@:-'&' 4&?' J-4'&"' 45K' (<R53 @:<"B'?'
8":!/':;-D5' 5: 59"&>4'6& 4' 45' -6"'"<?5!4<'64<5C59'J5'B5=&C595B'
D&">!'6=&-':5"'7-9' ?5' J'<?<"'&&"$ -' ?5' -*+8)' ()'!$')! 3$ $*' 2*+'

45 B575< < - 8 9<: 6<: 48: A - 8" 59J<=<"A5B 45
&">: : &== =<J - 895B - ; 95C5" 45 5<>85 79 - ?: J5A - ?$

L1X

= ' '$2 ' . '(' ( ) ' <"B 4< ' - 8
6 - 8=B B - 64< ' =< ' &" - 8 7 - 9 45
>--B - 7 9<"A5! <"B D55; ' & ' - ' - 89S
:5=7! : - 4< ' & ' :4 - 8=B "5C59 J5
: ; - D5"' - 7 " - 9 45<9B - 7! 4< ' 45 4<B
B5<= ' 48: A - "7&B5" = ' 6& 4 - 89
(<R5: ' - 9 <" ' - 7 - 89:
5 :<&B 45 6 - 8=B <: : 895 4&? : 5=7! - "'
? ' ; 9 - ?&: 5! 4< ' ' <"B - 89 (<R5: '
6 - 8=B ; 597 - 9?' & ' < ' <== ; - &" : 4< '
45 6 - 8=B B5<= ; =<&"= ' 6& 4 ?5 <"B
=< ' 4&: : < 5 ? - 95 - ; 5"7 - ' - 8 '
(<R5: ' 4<"' 5C59 45 B&B - ' <" '
4< ' 45 6<: 65== A - " 5" ' :45 :4 - 8=B
<D5 <BC&A5 - 7 <" ' 459 ? - : ' :5A95 '
A - 8" A&== - 9: 64 - ?' & ' ; =5<: 5B 459
4< ' 45 D"56 : 45 4<B 45?! 4< ' 45
6&: 45B 6& 4 <== 4&: 45<9 - ' 4<C5
>&C5"' - 7 4&: J=--B 4< ' 45 4<B 45
=&D5 4< ' 6 - 8=B B5; 5"B 8; - "' " - J - B '
48 ' 4&: 6&==! 4&: <77<&9: :4 - 8=B " - '
; 5"B95 D J<=<"A5 <: 4H ' B - " 4< '
645"' 45 =<: ' B< ' 45 :5" ' ?5 6 - 9B
J ' &"<9 ! 45 <": 659 45 B&B ?<D5
& ' 6<: 45 %855"$? - 459 <"B 4&:
64 - =5 - 8"A&=@: ; 595?; - 9 <BC&A5!
: <"B&"> 8; - "' & ! & ' 6<: " - ' 7& ' 45
:4 - 8=B B5: &95 - 89 (<R5: ' - ' ?5BB=5
J5 655"' 4&?' <"B 4&: :8JR5A : 4< '
45958; - "' 45 ?<B5 45 <": 659! <"B
B5: &95B ?5 - ' :5"B & ' <6< ' <: ' B&B!
4< ' "- 4&"> ?&>4 ' 45 :8: ; 5A 5B 4< '
' 4 - ; 5B - 7 <" 4&"> 5=: 5 79 - ?' 4&?' $
48 ' 4< ' 45 6 - 8=B B5<= ? - 95 ; =<&"= '
6& 4 - 89 (<R5: ! J5: 55A4&"> - 8
6& 4 <== 4&: 45<9 - ' B - ' & ! <"B 6& 4S
- 8 ? <D&"> D" - 6"' - ' <" ' 4< ' <" '
95W85: ' A< ?5 79 - ?' 4&?! J5A<8: 5 45 '
- 7 45 95=&>&- "! <: 45 :<&B! A - 8=B
D55; " - 4&"> :5A95 ! <"B 4< ' - 8
6 - 8=B ; 59: 8<B5 45 &"> - 7 <C<995
- ' 4<C5 < A<95 - 7 4&: 5: < 5! <"B -
<AA - ? ? - B< 5 4&? : 5=7 - ' 45 95"A4
&"> &"' $: 8A4 : - 9 ' <: 45 5<>85
?&>4 ' 4<C5 "- ' ; 95 5"A5 - ' 98&"'
9<"A5 <"B 4&?' J - 4
(' - =B 4&?' - 89 (<R5: ' A - 8=B "- '
B5<= 6& 4 45 45 &">' - 7 <C<995 7 - 9
95=&>&- "' ' - 8 6 - 8=B B - ' <" 4&">'
5=: 5! J8 ' ; 59: 8<B5 4&?' - ' A4<">5
- 8 6 - 8=B "W ? - 95 B - ' 4<"' - 8 4<B
; 59: 8<B5B 4&?' - ! <D5 & ' 7 45
&">' - 7 <C<995=: - 6"' R8B>?5" '
: 4 - 8=B ? <D5 4&?' B - ' & ' 7 - 9 45 >--B
- 7 4&: 5: < 5! - 8 6 - 8=B "- ' ?5BB=5
6& 4 A - ": A&5"A5 " - 9 6& 4 4&: : - 8=
(5 : <&B 45 6 - 8=B B5<= <: ; =<&"= '
6& 4 ?5 <: &7 ' 6<: 4&: >4 - : = '
7< 459 ' 5 6<: < >--B < 4 - &A!
<"B 45 6&: 45B <== 9<"A5 6<: < 4 - S
=&A! J8 ' 45 6<: " - ' : 8A4 < J&>- ' 4< '
45 6 - 8=B =5 ' 9<"A5 <"B 4&? : 5=7 J5
98&"5B : - - "59 4<"' ; 59?& ' 45 5L59S
A&: 5 - 7 45 95=&>&- "! <: 45 4<B B - "5 <"B
6 - 8=B B - ' & ' <><&"' 6& 4 <== 4&: 45<9 '
J8 ' !$ - ' ' (* - ' *+$ * 6 ! 'B* - ' O
: <&B 45 B5<= ' ; =<&"= ' 6& 4 ?5 ' &O
=<: ' 4 - ; 5 - ' 4<C5 B - "5 4< ' 6<: J '
45 5&: 59: ?5<": ! 64 - ' &7 45 ' 4<B
5& 459 C<=- 89 - 9 B&: A95 &- "! ?&>4 '
<C5 ?<B5 45 5<>85 8; - "' 45 '
D"55: ' <: D 4< ' 64&A4 45 ' 4<B J55&K
&"' <9?: ' 7 - 9! 64&A4 6<: 64< ' 45 5&E
; 5A 5B <"B =- - D5B 7 - 9! <"B 6<: JO
A<8: 5 64 ' 45 6 - 8=B <D5 "- ' D" - H/
=5B>5 - 7 45 - 7759: ' ?<B5 4&?' 79 - 8K
- 89 (<R5: ' - ' : < ' 45?' 5 4<B
>&C5"' 45?' <== 45 ?5<": 45 ' B5S
:&95B - ' 4<C5 B - "5 & ' &7 45 ' A - 8=B!
<"B &7 45 ' 6 - 8=B 4<C5 D5; ' 45?S
:5=C5: ' 7<9 5" - 8>4 79 - ?' 4&?! <: JO
D5; ' 79 - ?' 45?! &== 45 ' 6 - 8=B
"55B: ' A - ?5 - ' :55D 4&?' 6&A5 - 7
49&A5 J57 - 95 45 ' 4<B & ' &"' 45&7
4<"B: - ' 4<C5 - C59 49 - 6"' 45 5<>8O
<"B 4<C5 5"B5B <== &"' < B< '
45 ' 4<B 9<C<>5B - 99<&"5! 4<?S
; <>"5! <"B 89>8"B ! <"B 4<B =57

&">B-?&"<" 5 8&:56<:"-6&"<;-:&&-"-;95C5" 4&?79-?:5"B&">45=;-=&I<J5 4"8&:5

"-"5-7=&5&9<B4595":8":;-&=5B!45 '6-8=B<:?8A4<4<C5;9<5B'7-9j A<A5<:'45'4<B:-8>4'45'A-"9<9J8'&":5<B-7<""-&">45?!45'4<B'A-?5-:55D'4&?!:-4<'45'6<:-J=&>5B-B-4<'45B&B!J5&">J9-8>4':-=-6<:45'6595!-<D545'4-"-89-8'-7'45 5<>85@:4<"B:

Q -6'<=4-;5'4<'6<'6<:<D5"<6<!7-9'4<'45'4<B'=5@45?'=5<9"'45'6<'4<'6<:"5C59'4-8>4'-7'J57-95'-98&"'<:?<"'<&$?&5:'-7'5&:59:'<:'5C59':4-8=B'A-?5'&"-'9<"A5'6&4-8'7&>4&">!<"B'64&A4'45'A<""-'&?;5<A4'45?'-7'6&4-8'?<=B">4&?:5=7'<';<9'<><&":'45?!k 64&A4A<""-'45'7'45'A-?5'<><&"'45'6&=-'>&C5'<A-=-89'-'45'-459:'-'A<==&"'-459':9<">59:'-'45&9'B575"A5'64&A4'45'75<95 4'?-:'-'J9&">'45?'J<AD'6-8=B'J5'98&"'-'<='&:'4-;5'"-6'45957-95'&:'4<'45'A-=-89'-7'J5<9&">'<9?:'?<'45'<=:5"'<6<!64&A4'A<""-'J5'5LSA5;'45'&">'-7'<C<995'6&=-'&5=B'-'4&?'&"'95=&>&-"'4&:'<"B'4&:'-"='-8=B'A8'45'5<>85@:'49-<

Q ':?B!-89'(<R5:'6-8=B'B-'<=-G7-P'A-8=B!J8'-"'95=&>&-"'-8'A-8=B'4-'-;5"'-89'?-84'-'45'&">'-7'<C<995!<"B'&7'45'6-8=B'&5=B!'B&B'"-':55'4-6'45'A-8=B!7-9'45'4<B'4-';-6599'-C59'-"BB'"-9'-C59'45'5:'-7'45'95=&>&-"'5':<&B'&7'<C<995'<"B'-"BB':8J?&5B'45'5:'6-8=B'-J5!J5&">'45'6-'"5L'45&9:!-9'<'<"'9<5'<C<&95'J5&">'45'"5L'45&9!64-?'6595'&'"-'7-995=&>&-"'45'6-8=B'&?75B&<5='<A$4"-6=5B>5

Q ':<&B'&7'6595'-7'45'&">'-7'<C<995@:'-8"A&=!<"B'6<:'95W8&95B'H'>&C5'4&?'45'J5:'<BC&A5'7-9'45;95:59C<&-"'-7'4&:'5:<5!'6-8=B'J&B'4&?'B-'64<'45'C&">'B5:&95B!J8'&7'6595'-7'45'&">@:'-6"'-8"A&='6-8=B'J5'-9"'&"'&5A5:'7&9:'45'&">'-7'<C<995'6-8=B'<'-"A5$J5A-?5'45':8"!9&:&">'A=5<9!<"B'6-8=B'5A=&;:5'45'&">'4&?:5=7&Q 5'6<:':&=5"'7-9'<&?5'5'45"':<&B'5C59J-B'A-8=B'98=5'<:4956B'6&75'J8'45'4<'4<B'459'A-8=B'5==6J9:'45'6<'-'98=5'459!<"B'4<'6<:'4&:'A<:5'J8'45'6-8=B'9<459'9&:D'64<'?&>4'A-?5'79-?'<C<995'4<"'-'4<C5'45'5<>85'J'4<'A-=-89'-': 95"> 45"'45?:5=C5:'B<&=!64&A4'A<""-'J5'95?5B&5B'5=:5Q 5':<&B'45'4<B'-;5"5B'4&:'?&"B'-'?5'<:'7<9'<:'45'4<B'"5C59'B-"5'-'<"':9<">59!<"B'-'J8'756'&"9<"A5'5'98:5B'&"'?'6-9B'-J5':5A95!<"B'&7'7<&4'6<:'"-'D5;'6&4'4&?'45'6-8=B'"5C59'B5<'A-"S7&B5"='6&4'-89'(<R5:'"-9'<"'-7'-89:'<><&"'"-'=&C&">'A95<895'B&B'D"-6'-7'?'A-?&">':<C5'45'4<'J9-8>4'?5!"-9'45'"-4&">'-7'45'?<59'!'&'6<:'5C59'45<9B'45'6-8=B'B&:<C-6'4<C&">':55"'?5!<"B'"5C59'=-C5'-89'(<R5:'?-95!J8'4<5'-8'<:'?8A4'<:'45'=-C5:'-8"J8'&7'-8'6&=='45=;'4&?'-';<A&7'9<"A5!<"B';8=='&'-8'-7'45'?-84:'-7'45?'4<'?<D5'&'<';95'-':9<;>59:!45'J5&">'-8'-7'B<">59'&"'9<"A5'?<'45=;'4&:'"5&>4J-89:!64&A4'45';9-5::'45'6&=='B-'&:5"5?&5:'<95'-89'(<R5:@:'<"B'-8':4-8=B'45=;'4&?!7&9:'J5A<8:5'-8$<95'&"'W8&5'<"B'4<C5'?5<":'-'B-&'&:'?-459'<"B'45'-8"A&='B&:S:8<B5B'4&?'79-?'<:D&">!<:'<'4&">'B&:4-"-89<J=5'-9<"A5!4<':45':4-8=B'?5BB=5'J5655"=&&?'<"B'4&:':8JR5A:'5'45'B&B'B5:&95'&!'<"B'B&B

N. ! $* 2 * 6 (78' ()

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*M3,

4&?:5=7 ?&>4 4<C5 789"&:45B <; -65978=A-" &">5" &"
:8;;-9 -7 45&"C<:&-"" <"B 45 95"A4 <4--&A: 6595
?-95 4<"" 5C59 <"L&-8: - <D5 ;<9 &"" &! 4< 45
?&>4 4<C5 <C-&A5 &"" 45 78 895 B&:;-:& &-"" -7 ">=<"B!
=5"& 6<: J5:&5>5B 6& 4 5" 95< &5: -A=<&?< :4<95 -7
45 5" 59;9&:5! -9 < =5<: -6 8&:5 -<A &"" 4&:
"<?5" 64&=5 45 95"A4 ;<9 &5:< -?5 6-&D5B 8;-""
45 -;5 6& 4 <;59:&: 5"A 64&A4 9&5B <== 45 :D&== -7
=&C<95I

45 :5A95: -"" 64&A4 4&=&;& ":&: 5B 4<B =-"> J55"

483 :5A95 = J5:55A4 ?5 -J9&"> & <J-8 !J8 ?8: J5 :5A95 - 4&"> 06-8=B ?-95C<" <>5 45 5<>85 4<"" &7 & 6595 D"-C?4< 45 4<B 4<B A-"7595"A5 6& 4 ?5 5 4<B "- ?<" -98: - &5 4<B >-"5 6& 4 ?5 789 459 4<"" 45 4<B 5C59 >-"5 06& 4 <" -9 5C59 ?5<" -B- <><&"!

E 5 45"" <=D5B <J-8 45 %855"" -7 A- :<"B 459 B5< 4! 645"" :<&:S 7&5B 4&?-89 (<R5: 6<: "- -J=<?5 ! 5 -=B ?5 45 %855"$?-459 <"B -459: -=B 4&?4< & : --B -"" 4&:4-"-89 -95S C5">5 & ! J8 45 6-8=B "-B- 4&: 7-"A5 <C<995 <"B 45 A-8=B J5 J9-8>4 -<A ->5 459! 45 &&&B!45A-8=B :5 =5 9<"A5! J8 6& 4S -8 4&: <== J&: < 5 6<: =&D5 -J5 J9-8>4 -4<I<9B Q &: < 5 6<: "- <: -459 ?5"@:! "-9 95"A4 48?-89: <: -459 ;5-;=5: 7 <S C<995 6-8=B 45=;! J A4<">&">4& 95=&>&-"! 45 6-8=B <D5 <"-459 A-89:5! <"B J5 J54-=B5"" -J&: 7&&5"B: 4< :4-8=B ?-C5 4&?-&! -459$6&:5 45 ?8: >-"" <: 45 &: B-&">! <"B :6<==-6 ?8A4 <><&": 4&: : -?<A4 -6&"" &?5'

E -:;-D5 -7 -89 ;9-;-:5B ;5<A5 6& 4 ;<&"! 64&A4 45 4-8>4 6<: B5=8:&-"! <"B A-8=B "- :8;;-:5 -89 (<R5: J5=&5C5B &"" & 5 D"56 <::895B= 4< ;<&"" ?5<" &! "- ! -9 < =5<: &7 45 B&B & 6<: J8 -:59C5 4&:;95:5" 89"" &=-45 4<B B-"5 6& 4 9<"A5! 5 ;9-5: 5B 4< :&"A5 4&: 95< J5><"" 45 4<B J55"" A-" &"8<== ;95::5B J ;<&"! <"B 5 6<: B<&= -R-&"" <"" < 5?;' <><&": -89 (<R5: ! 4< 45 <=?-:' <=-"5 4<B!45=B! <><&": <== 45 6-9=B! 4< "- 4&">:4-8=B 45 B-"5 <><&": -89 (<R5: !<"B 4< &"" 98 4 'D"-6 -J5 985! J8 &7 45 B&B "-A-":&B59 4&?&"" 45 5"B -8 ?8:7-==-6 4&: -6"" &" 595:'<"B >-6& 4 45 : 95<?' 45 B<&= A-??& 5B J 45 ">=&:4-"" 45 95"A4 ?<B5 ;5<A5 ?-95 <"B ?-95 B&77&A8= <:D5B &7 45 6-8=B J5 -775"B5B &7 <"56 <9? -7 5&: 59:A<?5 -4&:79-" &59

E 4&"D 45 6-8=B "- ! 7-9 45:5 6595 4&: 6-9B:'_ 5 B&<J=5 =5:5 5?;-9 5! W8&&=:? -" B5?589 B59S "&a95?5" 0A<"<&==5: W8&&=: :-" ! B-8J <J-8 <C<995@: B&:;-:& &-"! ;594<;: 45 B5:&95: -A4<">5 4&: 95S =&>&-"! <"B 6-8=B ?<D5 -89 (<R5: 4&: 5LA8:5 -45 6-9=B @ <9&:! 5J <M$ (<9A4 F! *M33 $$ =44 '(3

B&:95><9B5B C59 J-B ' D"56' 4< <"' 5L;5B& &-"')/-G
<><&":' ">=<"B' 6<:' &"' A-" 5?;=< &-"' 45' 95"A4'
?J<::<B-9' "-'=-">59'-;;-:5B'&!' J8';9- 5: 5B'<><&":'
;<&"' 8"B59 <D&">' <"' 5" 59;9&:5'<=-"5!'&"' 6=&&A4'&' 6<:' *M3,
45';9&C&=5>5'<"B' 45'B8 '-7' 45' <4-=&A'6-9=B'-'G;<9S
&A&;<5" 64&=5' 45' -;5';=5<B5B'4&:'-J=&>< &-"!'<:' 45'
&?;<9&<=' <459'-7' 49&: 5"B-?!' -' 65=A-?5'<'A-S
-;59<&-"'7-9'64&A4';&-8:' <4-=&A:'4<B':-'=-">';9< 5B'
&"'C<&"
4&=&;'6<:'&"' >95<'5?J<99<::?5"' 5'A-8=B' "-'
98:'=&5"& ' 5'A-8=B'J8';<9&<==' 98:' 8&:5' 5!'
&7' 9<"A5'6<:'&B5<=='<"B' 98='6&=4">' -'R-&"'?4'4&?!'
45'A-8=B' "-' ?<D5' <"' -;5"'-JR5A &-"' 5'B&95A 5B'
=&C<95I' -' :;5<D'&??5B&<5='-' 45' -;5'<J-8' 45'
:8AA5::&-"!" -'<:'<::59&"A7'<9?4'J8'&"' 45'7-9?'-7'
A-":8=<&-"' 45'%855"'-7' A-:@6P=!'45':<&B!'4&:';59S
:-"<=A=<&?'J'J=--B!'<"B'4&:'A=<&?'J'A-"W85:'645"' 45'
A-"W85:'6<:'5775A 5B!'A-?J&"5B'<"B'6-8=B'A-?J&"5' -'
?<D5' ">=<"B'4&:'=5>&&?<5';9-;59 "' J8'<:'45'6-8=B'
J5'8"<J=5' -'95:&B5!'4595'4&?:5=7!'<"B' 45';95:5"A5'-7'<
<4-=&A' -C595&>"' 6-8=B'J5'<==$&?;-9<"'7-9' 45'95S
:-9<&-"'-7' 45'7<&4!'45'B5:&95B' -'D"-6'4&:' -=&"5::@:'
-6"'6&:45:' 5';9-75::5B' 45'8?-:'A-"7&B5"A5'&"' 45'
R8B>?5"'-7' 45' -=' 55!'<"B'-7' 45'>--B$E6&=='-7'4&:'
-=&"5::' -6<9B:'4&?:5=7'&"' ;<9&A8=<9' 5'B&B' "-'
B5:&95' -'?<D5' ">=<"B'<';<9'-7'4&:'B-?&"&-":!' "-9'
-7'4&?:5=7'4<B'45'J55"'&"A=&"5B' -'9<&:5'<W85:&-"'-"'
45':8JR5A "'J8' 45'5L;5B&&-"'6-8=B'A-:' 45' ;<"&:4'
95<:89'<'=<9>59':8?' 4<"' ">=<"B'6-8=B'5C59'95;<"'
45'9&"A5'4&:'-"'6-8=B'4<C5'A<8:5'-7'A-?;=<&"'&7'45'
<==-65B' 45'9&>4':'-7'4&:'7<?&=' -'J5';<::5B'-C59"'<"B'
45'-AA8;<&-"'-7' ">=<"B'J'<79&5"B='-659'6<:'-7'
45'>95<5:'&?;-9<"A5'7-9' 45':<75'4-=B&">'-7' =<"B59:'
5'&"HB 5B' 45' -;5!' 45957-95!' -'A<==&"' 45' <::&:<"A5

-7 45 -= ; &9& - B5 59?&"5<B&77&A8= ;9-J=5? &: -6" 6&:4! 45 95;5< 5B! 6<: - :55 45 ">=&:4 A9-6" B&:;-:5B -7 &" 45 ?<""59 ?-: <BC<" <>5-8: - 45 ;-: -=&A 55 <"B 45 &" 5L@5: : -7 45 < 4-=&A 95=&>&-" H - 4&: :?-- 4 =<">8<>5 45 -;5 95;=&5B &" 45 :<?5 -"5 5 ><C5 4-;5: 4< 45 6-8=B B5A=<95 A-"S B& &-"<== &" 4&=&;@: 7 &C-89! &7 4&=&;6-8=B J&"B 4&?:5=7 - "-?&"< 5 :-?5 - 459 ;59:-4 &??5B&<! 5= <7 59!<"B 45 A-":5" 5B < =<: - >&C5 P5" 45 =-">$:-8>4 4-"-89 -7 45 <9B&97<=< 5! /

- 4&"> 6<: :5 =5B! 4-65C59 -?;=<&" : <"B 95S A9&?&"< &-": ;<::5B J<AD6<9B: <"B 7-96<9B: J5 655" <9&: <"B -?5! <"B -?5 <"B (<B9&B <"B 4&=&;! <A &"> -" ==5"@: <BC&A5! 95:--=C5B - : 9&D5 45 J=-sC :8BB5"= <"B 6& 4 <==4&: ?&>4 ! 64&=5 9<"A5 6<:5"S <">=5B &" A&C&=6<9 & 4 ">=<"B &" 4&:!;-::5::&-"! 45 7=< 595B 4&?:5=7 4< 45 A-8=B B&A <5 5&?: - 89-;5 <4&: -6" ;=5<:895 49-8>4 <==4&:8"A59 <&"B&;=-?<A 45 4<B "-&" 59?& 5B 7-9 -"5 ?-?5" 4&: ;95;<9< &-": 7-9 6<9 P"=&D5 =&I<J5 4! 64&=5 45 4<B <=D5B -7 ;5<A5 <"B 4<B ?5<" ;5<A5! A-8=B 45 4<C5 & -" 45 A-"B& &-": 64&A4 :45 6<: 459:5=7 ;9&C< 5= ;95;<95B - <==-6! 45 4<B J55" J8: 7-9 7-89 5<9: <BB&"> :4&; - :4&; <"B ><==5 - ><==5

45 A98:<B5 <><&": ">=<"B 4<B J55" ;95<A45B 79-? ;8=;& <"B ;=< 7-9?!<"B 45 A4&C<=9-8: <: &=&<":! 64-:5 A955B 6<: "- 5 <A<" ! <"B &" 64-? 45 <9B-89 -7 45 A98:<B5 4<B J55" D5; <=&C5 J 45 6<9: -7 45 (--9:! 4<B A-?5 7-96<9B 6& 4 5" 48:&<:?- B9<6 45&9 :6-9B: 7-9 -B <"B 7-9 45 #&9>&" <B -7 45&9 B5C-&-"

E 9<7 -7<;9-;-:&&-" -J5 :8JS ?& 5B - 45 -;5! 8= *M3, _ =44 4! .'(3'

K (' <" ;-A- "-B5:A-"7X- W85 :5 ;85B5 <9<59 5= <;< Y W85 B&5:5 =< &"C5: &B89< ;<9< # (<>EK A-" -J=&S ><A&Z" B5 :8J&"C5: &9 =85>- 9-! W8+ :59&< B5 A-":&B59<A&Z" @_ 8!L' 9 '! 2 F+ 8=&-! *M3, =44 :!)

C59 ' "-J=5' 7<?&=' &"' ;<&"' J<B' :5=5A 5B' -"5' -9' ?-95' 9
-7' &:' :-":' -' 95;95:5"' & ' -8" 9 ' 4&B<=>-5:!' -7' k 64-?' $$$$$
59C<" 5:' 6<:E -"= ' 45' 7&"5:' ;5!' 64-:5' >95< $>9<"B$' 5;5?J89
7< 459:' 4<B' 7-8>4' &"' 95"<B<' <"B' <;=5:!' <"B' 64-:5
7< 459:' 4<B' J9-8>4' 4-?5' :A<9:' 79-?' 5;<" -!' 4<B
C-=8" 5595B' <:' &7'7-9' 45' 6<9' <><&":' 45' <9<A5":
45' B<?<>5' B-"5' J ' 9<D5!' 5"-9?-8:' <:' & ' 6<:!' 4<B'
J55"' 95;<&95B' :6&7 = ' J ' 45' 5" 48:&<?' -7' 45' A-8" 9 !'
<"B' J ' 45' J5>&" "&">' -7' 45' 6&" 59! 45' ?-:' ;-65978=
7=55' 5C59' :55"' &"' 89-;5' 6<:' 7=-< &">' 95<B ' 7-9' :5<' &"'
45' <>8:' 65" ' 4-8:<"B' $;<"&:4' :-=B&59:!' <"B' <:'
?<" ' :5<?5"' <"B' ><==5 ' :=<C5:!' 6595' -==5A 5B' &"' <"B'
<J-8' &:J-"!' <9 B' <' 45&9' 45<B' 6<:' 45' C5 59<"' -"'
=C<95I' B5' <=<"!' (<9W8&:' -7' <" <' 98I!' 64-:5' J- S
4--B' 65" ' J<AD' &" -' 45' 6<9:' -7' 4<9=5:' # !' 64-' 4<B'
B5: 9- 5B' 9-II&<"B' 45' 95"A4' ;9&C< 559:' <' 59A5&9<!'
<"B' 4<B' 6-"' 5;<" -' 7-9' -"' -4"
45' <9? ' -7' 45' 9&"A5' -7' <9?<' 4<B' J55"' :&?8= <S
"5-8:= ' 95&"7-9A5BH' 45' ><;:' ?<B5' &"' & ' J ' 45' :&5>5'
-7' =8 :' 4<B' J55?7&==5B' "' 45' -C5?J59' 7-==-6&">' 45'
4<B' 4&9 ' 4-8:<"B' ;<"&<9B:!' <=&<":!' <"B' 59?<":'
B&:;-:5B' <' C<9&-8:' ;-&" :' <=-">' 45' A-<:' 5' 4<B' A-=S
=5A 5B' <"' &"7&"& 5' "8?J59' -7' 45' =<9>5' 7=< $J- -?5B' 9&C59'
J<9>5:' 7-9' 9<":;-9 :!' <"B' J<B' <D5"' 45?' B-6"' -' 8"S
D&9D' <"B' &58;-9 ' 5' 4<B' <' 756' <9?5B' 4- :' J5:&B5:!'
<"B' =<9>5' J-<:' 7-9' =<"B&">!' <"B' &"' <BB& &-"! J8 ' 8"7-9S
8"< 5= ' &"' 45' A45=B ' <' " 659;!' <"B' 45957-95' 8:5=5::'
-' =-">' <:' =8:4&">' 6<:' &"' 45' 5"5? @:' 4<"B:!' @ 4&9 $'
@-"5' J9<C5' :4&;:' -7' 6<9!@EA<99 &">' 5<A4' 65" ' -9' 4&9 '
J9<::' >8": H' 45' <9? ' 6<:' D5;' ->5 459!' <;;<95" = '
495< 5"&">' :5"B!' <"B' 45' 9&"A5' 95;-9 5B' 4<' 45' 6<:'
A5<B ' <' <" ' ?-?5" ' -' 9<":;-9 ' 45' 5" &95' 7-9A5' -

9 E " >=<"B &7 45 7=55 A-8=B 4-=B 45 4<""5= 64&=5 45
mA9-:5B

5;5?J9 5=< 5B <: 45! 4<B J55"' J 9<D5! 4&=&;' 4<B "- ' ;<9 5B 6& 4 45 4-;5 4< ' 45 ?&>4 ' 9 ' 45 >95< ' 5L;5S 9&?5" ' &"' 45 ;95:5" ' 5<9 ' 5 4<B <99<">5B 4&:' ;=<":' &"' 5; 5?J59!' <"B 4<B ;95;<95B <9?<' 7-9 45 &??5S B&< 5 <99&C<= -7 45 7=55 ' 5 6<:' 45"!' 45 :<&B! 6<& &">' -"= ' 7-9 45 <99&C<= -7 < 756 :4&;:' 79-?' 45 (5B& 599<S "5<"' -' :5"B -9B5 :' -' <" < 98I' -' :<&= E!' -B!' & ' 6<:' -' J5 4-;5B! 6-8=B <D5 A<95 -7 45 65< 459" J8 ' 45 4<""5= J5&">' < B<">59-8:' ;=<A5!' <"B 4595 J5&">' "-' 4<9J-89 -"' 45 E 95"A4 -9 =5?&:4 A-<:' 64595 =<9>5 :4&;:' A-8=B 9&B5 &"' :<75 ! 45 9?<B< 6<:' -' ;9-A55B &??5B&< 5=' -' 45 ?-8 4 -7 45 4<?5:' <"B <"A4-9 -77 (<9>< 5' "' 4<' ;-:&&-"' 45 ' 6-8=B 4-=B ;5975A ' A-?S ?<"B -7 45 9<&:' -' ">=&:4 C5::5=:' A-8=B :456 8;-"' 45 6< 59!' <"B <9?< A-8=B ;<::' &"' :<75 ' <"B =<"B &"' 4<"5 ' <" < 98I' 6-8=B J9&">' 6& 4 4&?' :&L 55"' 4-8:<"B ;<"&:4 &"7<" 9 !' :&L 4-8:<"B -7 45 J5:' -7 64&A4 <9?< 6<:' -' :5=5A ' <"B <D5 6& 4 4&?!' <"B 45 <"B 45 (<9W8&:' ?8:' 45"' <99<">5 45&9 78 895 ;=<":' -' &?5 6<:' -' J5 =-:!' 7-9 45 B55;59 45 6&" 59 45 ?-95 B&77&A8=' 6-8=B J5 45 C- <>5" <"B 45 &">' 45957-95 -=B 4&?' -' 5L;5A ' -' :55 <" < 98I' 6& 4&"' < 756 B< :' -7 45 <99&C<= -7 4&:' =5 59 ' 5 6<:' -' 4-=B 4&?:5=7 95<B ' -' 5?J<9D' < ' < 756 4-89:@ "- &A5 5C59 ' B< ' 4< ' 45 7=55 ' =< ' 5L;-:5B 6-8=B J5 <"' <BB& &-"<= <"B 8""5A5::<9 ' ;59&=!' <"B 45 A-":5W85"A5:' -7 < B&:<: 59 ?&>4 ' J5 ?-:' :59&-8:' 5 ;9-75::5B 8"S J-8"B5B A-"7&B5"A5!' 4-65C59!' &"' <9?<@:' ;98B5"A5 <"B R8B>?5" !' <"B 45 B&B "- ' B-8J ' 4< ' 6& 4 -B@:' 45=;' <==E 6-8=B >-' 65== H

' 4< ' ;<9 &A8=<9 ?-?5" ' <==' A-"B& &-":' 4<B J55"'

7<C-89<J=5' 5"9 ' ' 8&:5' 6595' -"' 45' -&95!' -AA8;&5B' 6& 4' 45' 5& 59H' =&I<J5 4' 6<:$-J: &"< 5= ' _' 9578:&">' -' 45<9' -7' <" 4&">' J8 ' ;5<A5!' <"B' 6<:' B95<?$:5;A6&R59 &">' 4<' :45' ?&>4' 5?;' <9?<' -' B&:<C-6' 4&:' <==5S >&<"A5' <"B' :5' 4&?:5=7' 8;' <:' 8D5' -7' 89>8"B ' 59' <9? '&"' =<"B59:' 6<:' 7<==&">' -' ;&5A5:!' <"B' :4&;=-<B:' -7' : <9C&">' 695 A45:' 6595' 7=-AD&">' J<AD' -' ">=<"B' -' A=<?S -89' <' 45' -8"A&=' B--9:' -' B<">59' 6<:' <" &A&;<5B' 79-?' ;<&"!' <' :--"5:!' J57-95' 45' 7-==-6&">' :8??59 45' 756' :4&;:' 64&A4' 4<B' J55"' 45=B' &&& A-??&::&-"' <7 59' 9<D5@:' 95 89"' A-8=B' "-' =-">59' D55;' 45!:5<:' 6& 4-8' 95;<&9 E' 45' 95:' 6595' = &">' 8"9&>>5B' &"' 45' (5B6< H <B' <" <' 98!' :<&=5B' J57-95' 45' 5"B' -7' 5; 5?J59' <:' 4&=&;' &" 5"B5B!" -' <' :4&;' A-8=B' 4<C5' J55"' J9-8>4' -8' -'5"A-8" 59' 4&?' <9?<!' J5 -"B' W85:&-"!' 6-8=B' 4<C5' A9-::5B' 45' 4<""5=!' <"B' 45' J< =5' -7' ">=&:4' =&J59' / -8=B' 4<C5' J55"' 7-8>4' "-' <' :5<J8' -"' :4-95

8' 5; 5?J59' ;<::5B' J57-95' 45' 5L;5A 5B' :W8<B9-"' A<?5'&"' -' 45' <>8:!' <"B' 45' <8 8?"' ><=5:' J5><"' -' J=-6' 45' -;5' <"B' <9B&"<=:' 6595' A-" &"8<==' 5LS A=<&?&">' <' 45' B5=<' 45'&?;<&5"' =&C<95I' ><C5'&' <:' 4&:' -;&"&-"' 4<' 45' ?<&"' -A5<"' 6<:' <:' :<75' &"' 6&"S 59' <:' &"' :8??59" 4<' 45' B<">59' -7' 45' 4<""5=J5><"' "-9 4' -7' 45' 4<?5:'' <"B' 4<!' -'5L;5A' 4<9?' 79-?' 45' / 5<459' 6<:' -' :4-6' 6<"' -7'7<& 4'&"' 45' =?&>4 H

I'H@ -9' 5' &" 5"B5B' &"C<:&-"'& ' 1 V$'2 ' ' 79-?' ;<&"!' ' <?' :-99' -' 4&"D' 4<' 64&A4' ' 45<9' -7' 5C59' B<!' 4<' 45' %855"@:' :4&;:' <95' &"' 38A4' B5A<' ":' 45' <95' "-' :59C&A5S <J=5' &=' >95<' A-:' ?<' J5' B-"5'8;-"' 45?@_' $! 7 8 2' $*' ' !7 '$(' 5;' *F _ =44' 5*. $!3' 45' k 6-9B:'G!! V$'2 ' P' :456' 4-6'5" &95=' 89>4=5' 6-8=B' 4<C5' J55"' <D5"' J' :89;9&:5'&7' 45' 9?<B<' 4<B' <;;5<=5B')(' 45' +'((!,

K'@ &' J85"' "-' :5' ;85B5' "<C5><9' A-"' :5>89&B<B' A-"' 5:5' &5?;-!' :5' C55"' ?8A4-' ?< -95:' ;5=&>9-:' '&"S A-"C5"&5" 5:'5"' B&759&9';<9<-9-'<[-' ':&=<' 9?<B<' B5' :;<[<"-' &585' B5'5" 9<9' ?8' <B5=<" 5' 5"' =<' <"<=' Y' -?<9' &5&9<!'=<"<C5><A&Z"' B5=' (<9' >9<"B5"-' 5:' B5' 5?59' ?8A4-!' B5?<:' B5'=-'W85':5';85B5'5:;59<9'B5'=<'<:&:S 5"A&<' B5' ' 5[-9!:&5"B-' :8' A<8:<@' < 8!L' '' '8' 2' F-/E -C&5?J95 =44'4!.'(3'

*M33

< A-8"A&= -7 -77&A59: <"B ;&=- :! 4- C5C59! 45=B < &:J-"! J < <" < 981! & 6<: B5A&B5B -J5 --: =< 5! <"B E 4&=&;! 6& 4 5L 95 ? ` 95=8A <"A5! <AW8&5:A5B &"' 45 "5A5::& -7 ;-: ;-"5?5"

45 B5=< 6<: 8:5B -> >--B ;89;-:5 J "><"B J57-95 49&: ?<:! <:6&== J5 -=B &"' 45 5":8&"> A4<; 59! <"' 5775A &C5 :W8<B9-"' 6<: < :5< 8"B59 45 -9B' BS ?&9<= -< <9?< & 6<:E:&>"<== B&:<: 9-8: 49-8>4 8"<AA-8" <J=5 "5>=&>5"A5 45 6<: =57 8"&"7-9?5B 4< 45 7=55 6<:"W A-?&"> 45 6&" 59 -;5"5B 6& 4 45<C 9<&":< "B 6&"B:! <"B 45 <9? ! D5; 8"B59 A<"C<: &"' -J5B&5"A5 -4&=&;@: -9B59: -"' 45 4&==: <J-C5 8"S D&9D! :877595B "-=5::599&J= 4<"' 45 ">=&:4 4<B :877595B &"' <=A4595"' &"' 45 ;95C&-8: 6&" 59 55D ;<::5B <7 59 655D &"' 65<9 5L;5A < &-" 45 ;<"&:4 95>&?5" :! Q 45 A4&57 :&"56:@ -7 <9?<@: 7-9A5! J5A<?5 8"7& 7-9 :59C&A5 ;<"&:4! 59?<"! <=&<":! B6&"B=5B <6< <"B B&5B! <"B -7 45 4&9 4-8:<"B 64-6595 95<B -5?J<9D&"' 5; 5?J59! "- 5&>4 55"' A-8=B <D5 45 7&5=B < 45 J5>&""&"> -7 45 7-==-6&"> 5<9 45 &"> "5& 459 69- 5 "-9 :5" ! &== < =5"> 4! < 45 5"B -7 <"8<9 ! 4595 A<?5 < =5 59 &" &?< &"> 4< 45 9?<B< 6<:"- -:<&= &== 45 :;9&">! <"B 5L;95::&"> :-?5 &99& < &-"' 4< <9?< 4<B "- ?<B5 45 9&<= J 4&?:5=7! -9 4< 45 8D5 -7 8&:5 <"B 45 4<B "- >-"5 <A9-::' ->5 459

45 9&"A5! 64-:5 =- <= 6-8=B "- 8:8<== ;59?& 4&?' -5 8:5 <"' &?;< &5" 6-9B! A-8=B "- 64-== 95S : 9<&"' 4&:' ;9-C-A< &-"' < :-' <J:89B < 95;9-<A4 :' < >5"59<= <"B < :-=B&59 45 4<B J55"' <=95<B <A8 5= 9&5B J 45 :87759&">:' -7 4&:' 9--;:' 5 95?&"B5B 45 &"> 4< 45 4<B J55"' 5L;95::= 7-9J&BB5"' -? -C5 &== <" < 981@:' <99&C<= 45 :4&;:' < " S 659;' 6595 &?;9&:-"5B &"' 45 A45=B &:' 9<":;-9 :' A-8=B -"= < 5?; 45 ;<::<>5' &"' 45 ?-:' 7<C-89<WJ=5

k 65<459' -' 7<9' 79-?' J5&">' <J=5' -' 7&>4 !' 45 ' A-8=B'
J5<9' "5& 459' $6&"B' "-9' :5<' B89' "-'=&:4' C5::5=:' A-8=B'
:&"D' 45' /64-=5' -7' 45?' :K' ;' 8&:5!' 45' 4<B' <' =<9>5'
<9? '&"' 45' 7&5=B' J8' 645"' <=' 6<:' :<&B!' 45' 6<:' : &=='
95"A4!' <"B' 45' =5::' 4&=&;' 98: 5B' 4&?' 45' =5::' 45'
-8=B' J5' B&:<;;-&" 5B' (<B' 45' (<9W8&:' A-?5!@
<9?<' A-" &"85B!' (6459&' ' 6<:' 7&9:' -=B' -' =--D' 7-9'
4&?!' 45'=<"B&">' A-8=B' 4< 5' J55"' 57=75A 5B' 6& 4-8' B&7S
7&A8= ' 5& 459' 45' ">=&:4' "-9' 45' 8 A4' 6595' 45"'
&"'<' A-"B& &-"' -' 95:&:' -89' 55' "' 4&:' <"B' <=' 5=:5'
' 4<C5' ;8"A 8<== !' =-C&">= !' <"B' =- <==' -J5 5B' -89'
(<R5: @:' A-??<"B:' -89' (<R5: ' A4<9>5B' ?5' &"'
95;5< 5B'=5 59:' -' 6<&'7-9' 45' <99&C<=' -7' 45' 7=55' E' 7'
-89' (<R5: ' 6&==' "-6' -9B59' ?5' -' <5?;' 45' ;<:S
:<>5!' ' 6&==' 9'&' 4-8>4' 65' <==' ;59&:4' 5& 459' ?'
4-"-89' "-9' 45' ;=<A5' 64&A4' 4-=B' 6&==' ;59?&' ?5' -'
45:& <5' -89' (<R5: 'D"-6:' 4<' 45' 7=55' 4<:' "-'
<99&C5B"' -8' D"-6' 45' A<8:5:' 64&A4' 4<C5' B5 <&"5B'&'"
<"B' 5' -89' (<R5: ':8;;-:5:!' -' ?' 5L 95?5' 95>95 !'
4<' ' -8>4' "-6' -' J5'&"' ">=<"B' 5' -89' (<R5: '
>&C5' ?5' <"' <J:-=8 5' A-??<"B' <"B' ' 6&==' 5L5A8 5'&'
-' 69& 5' -' ?5' <:' &7' ' :4-8=B' &<C5' <A 5B' <=95<B '&"'
B&95A' A-" 9<B&A &-"' -' -89' &": 98A &-":' &:' "< 89<=RH'
B&: 95::&">' -' ?5' -' ?5' 45' :&>"<=' D&"B"5::' -' 5=='
?5' 64<' -' B-!' <"B' "-' B&77&A8=' :4<==' : -;' ?5!' 4-8>4'
-8' J&B' ?5' A9-:' <=-"5' &"' <' J<9>5' 45' :& 8<&-"!'
4-65C59!' &:' "-'=-">59' 64<'&' 6<:' 45' 8"& 5B' 7=55 :'
-7' 45' ">=&:4' <"B' 45' 95J5=:' <95' 7-9?&B<J=5' 5'
-89' (<R5: ':55' 4<' 45' (<9W8&:' A-?5:' 65==' <9?5B'
<"B' 789"&:45B!' 4<'&7' 45' J5' -J=&>5B' -' 7&>4 !' 45' ?< !'
6& 4' -B@:' 45=;!' 4<C5' 45' C&A -9 @H
45'&?;<&5"A5' -7' 4&=&;' 6<:' J8' --' "< 89<=' 45'
-"B& &-"' -7' 4&:' 95<:89' B5?<"B5B' 5& 459' &? ?5B&< 5

#

*M33
<&&8<&

k 6<9 -9 5=:5 &? ?5B&< 5 ;5<A5 45 -;5 : --B -4&:
-9&>&"<= B5 59?&"<&-"" -A-" 9&J8 5 "-4&">& &==45
;<"&<9B: 6595 <A 8<== &"" ">=<"B! <"B 4&: ?&==&-""
A9-6":! 645"" 45 A<?5! 6-8=B J5 J8 <B9-;-7 6<59
&"" 45 -A5<"" -7 45 ;95:5" 5L;5"B& 895 45 5=>&<""
9-C&"A5:! 8 59= 5L4<8: 5B! A-8=B &5=B "- ?-95 A-"S
9&J8 &-":! <"B ;<&"" 4<B -8;;= 45 5" &95 A-:! J-4
-7 45 <9? <? 8"D&9D <"B -7 45 7=55 <9?<@: 5LS
;5":5: 6595 7&C5 48"B95B 4-8:<"B A9-6":<?-"4
45 9?<B< H<: A-":8?&">< =5<: <: ?8A4 ?-95R
64&=5 A-" &"85B <::&: <"A5 4<B -J5 789"&:45B -8&:5
<"B 45 8D5 -7 -99<&"5! -D55;45 5<>85 &"" 45
7&5=B"" <"B :- >95< 6595 4&=&;@: B&77&A8= &5: &"" 7&"B&">
?-"5 ! 4< 45 ;5<A5 "5>-&<&-": 6595 : &== 7<9 79-?
J5&">< ?595 ;95 5"A5 45"" 45 ;59?& 5B <9?< -
&"C& 5 45 ">=&:4 A-??&::&-"59:! & 6<: "- ?595= -
><&"" &?5! 7-9 45 ;9-9<A &-"" -7 &?5& :5=7 6<: 98&"&">
4&? -8=B 45 <5: J5 J9-8>4 -<AA5; 45 A-"S
B& &-": 64&A4 &9 <?5: L@-7 :<"B B5 --5 8"B5&@ --D
-J <&"" 79-?=&I<J5 4! <9?< 5C&B5" = 4-8>4
4< 45 -8>4 -J5! <AA5; 5B 6& 4-8 &":&"A59& -7
95:59C<&-"" <"B 5W8<== 4&: A4&57 <"L&5R 6<: -7&"B
=&I<J5 4 :&"A595 <=:-H

K@ 5=<A&Z"" ;<9 &A8=<9 B5 =- W85
?-" < 8"" ?5: B5 :85=B-!@ .N C9&=!
*M33 _ = 44 4! . '(3'

K@ -9=-:<C&:-:W85 B5 -B<:;<9 5:
C&5"5"! ;-9=-W85 :5;85B5 A-P5>&9!
;<95A5 W85 =< 5 "< B5::5< =< A-"S
A=8:&-"" B5 =<;<I! W85 5= 5?59 5""
W85 5: Y B5 ;95:5" 5 5= ><: -W85
&5"5=5 &5"5"" ?8 9<J<R<B< 9<:
-B-5::-"-:5;85B5 A9559 W85 4<><
C&9 8B :&"-7-9R<B< B5 =< "5A5::&B<B!
A-?- -9<: C5A5:45 <;8" <B-Y # (<KH <8"W85 :& =< "5>-A&<A&Z"" :5
A-?5"R< J&5"";95: -!=5 B5:A8J9&9Y 5=
A<?&"-W85 ==5C<" ' :& 78595 <;<S
95" 5B5 J85"-:8A5:-!5: <9Y 5"" ?<"-
B5 # (<>/K 5:A->59 =-W85 ?<:59$
0C&B-78595 " &5"B-W85 B5 ;<9 -
B5 =<:;9-C&"A&<: 95J5=B5:4<"" B5:S
&"<B-Y =B5>-"B5 -">-=&8
;<9<<::&: &9 Y=<R8" < "5>-A&<A&Z""
;-9=<:B&A4<:;9-C&"A&<: &C&"&595"V
J&5"";85B5 # (<>KK 5: <9 :5>89-
W85 :& ?5 78595 ;-::&J=5 ;9-A89<
"-:-=-9<J<9 ;=< &A<:! ?<:C5"&9 5B
<=>]"" A-"A&59 -@ _ 8 5+\+)m
R . '' '8 32 F* "59-! *M33/
=44 :!38

6<: &" <A-"B& &-" - ?-C5 (5B&"< &B-"&< 4<B J55"
>-C59"-9 -7 (&=<" <"B A<; <&" >5"59<= -7 "B<=8:&<"
*M33 J8 45 4<B 45=B "- A-??<"B -7 A-":5W85"A5 < :5<
.3 .$ 5 4<B :456" "- ;<9 &A8=<9 <J&=& <" 64595! <"B 4&:
W8<=&7&A< &-": 6595 ?<&"= 4&: 9<"D <"B 4&: J5&"> :-"$&"$
=<6 -7 4&=&;@: 7<C-89& 5! 45 9&"A5:: -7 J-=&
55D:! ;594<;: ?-" 4: -7 B5=< ! 4<B "-6 J5A-?5
&"5C& <J=5 6& 4 <== 45&9 < 5"B<" 5L;5":5: <B
<" < 98I =&C5B <"B 4<B 45 9?<B<:<&=5B&" <"8<9 !
& 6-8=B 4<C5 -"A5 ?-95 7-8"B 45 4<""5=8"B575"B5B!
7-9 =&I<J5 4! &" < :;<:? -7 5A-"-? ! 4<B <><&" J9-D5"
8;4<=7 45 7=55 ! <"B B&:?&::5B 45 A956: 45 C595
95A<==5B :;55B&= <"B 45 :4&; 95$5W8&;;5B! &" 4<: 5!
<"B < <" 5"-9?-8: A-: ' J8 4595 6<: <" &" 59C<= -7
< 756 655D: 64&A4 45 ;<"&<9B: 6-8=B 5L<A = 4<C5
A<8>4 45 A4<"A5 ;<::5B! 4-65C59! <"B C<: "-
<==-65B - 95 89" H
(5<"64&=5 45 95=< &-": J5 655" =&I<J5 4 <"B 45
< 5: B&B "- &?;9-C5 " <":659 - 459 &"C& < &-"
- :5"B A-??&::&-"59:! 45 < 5:95;=&5B 4< 45 &">
-7 ;<&" 4<B 9578:5B - ?<D5 A-"A5::&-": &" 95=&>&-"
45 95W8&95B 459 45957-95 - <J<"B-" @ 45 4-==- ,
@ 7<=:5! B5=8B&"> 95< !@<"B - :8: <&" 45 "8?J59 -7 457
9--;: 64&A4 :45 4<B 8"B59 <D5" - :8;;= H =&I<J5 4
95 -9 5B @ 4< :45 6-8=B :8J?& - "- ?-95 &"B&>"& &5:
@ < 45 4<"B: -7 45 8">9< 578= 9-C&"A5:!@ <"B @ 4<B
@ 95:-=C5B - 6& 4B9< # 459 <::&: <"A5 79-? 45? @H
-9B 59J ! &9 <?5: 9-7 :! <"B -9B -J4<&"!
<"B &9 ? <: <8=5 ! 64- C<: <=:- < <A45B - 45
A-??&::&-"! <99&C5B < :5"B -" 45 5 4 -7 5J98<9 !

K &9 <?5: 9-7 :! &" <=5 59 -7 =&5 *M J& -7 5J98<9 E! : 9-"7R= &"$7R5: 45%855" @ -: < &9 9<"A&: 9<D5'@ 79-?>-&"> - :5" =--D: <: &7 J5 "&8: J<C5 J55" &" <A 8<=A-??8"&S A<&-" 6& 4&=&; _ *6$ $* $

5J *E K #=&::&-"-7 45 <5: - ">=<"B" (<9A4 M33 _ K =&I<J5 4 - -9B #&=-8>4J ! (<9A4 M$*M _

x 5J98<9 ' & =&$ (<9A4' = 4 ' 45&9' A-?&">!' &"' -"5' :5":5!' 6<:' 7-9 8"< 5!' 7-9' 45' =5::-"' -7' =8 :' 4<B' J55"' 49-6"' <6< ' 45' : 5"B' ><99&:-"' 4<B' J55"' 8";<&B' 7-9' 5&>4 55"' ?-" 4:"' 45&9' A=- 45:' 6595' 7<==&">' -77' 45&9' J<AD:' ⍰48"B95B:' -7' 45?' 4<B' "-' J55"' &"' <' J5B' 7-9' 6-' ⍰ 5<9:!⍰ <"B' 6& 4' <9?<⍰:' <9? ' 6& 4&"' <' B< ⍰:' ?<9A4!' 45' 7-9 &7&A< &-":' 4<B' J55"' <==-65B' -' 7<==' -' 98&":' 4595' 6595' :8;;=&5:' &"' 45' -6"' J8' 7-9' :&L' B< :H' 45' A-"B& &-"' -7' 45' ;=<A5' 6<:' A-"R5A 895B' J ' <9?<!' <"B' 6<:' :--"' <AA89< 5=' D"-6"' -' 4&?' -J59' 5A&=' <"B' <' c?8">' ;5"A59' 65"' -' 45"' -' >&C5' "-&A5' -7' 45' -?? &::&-"59:⍰ <99&C<=' <9?<' 95A5&C5B' 45?' 6& 4' 5=<J-9< 5' A-89 5: !' <"B' 645"' 45 ' 95 89"5B' -' : 5"B!' :5"' <"' 5">&"559' 6& 4' 45?' B&:>8&:5B' <:' <' :59C<"' -' 89C5 ' 45' B575"A5: H

6-' B&77&A8=&5:' =< ' -"' 45' 495:4-=B' -7' 45' 95< ' 45' 7&9:' 6<:' 45' ;=<A5' -7' ?55&">' 45' ">=&:4

Ĥ -"B&&-"' -7' : 5"B!' (<9A4' *M33 _ =44' 4B'!(' 45' 755=&">' k 6&4$64&A4' 45' &$5< '$6<' 95><9B5B' J ' 45' ;<::&-"<5 <4-=&A:' <;;5<9:' &"' <"' &" 59A5;5B' =5 59' 79-?' <' <"S A<:4&95' ;9&5:' &"' =<"B59:' -' &9' &==&<?' <"=5

⍰ 45 ' :<' 45' ">=&:4' J5>><9:' 6&=' A-?5' :4-9=!' <AA-?;<"&5B' $6&4' h++' <5"B<" :' 5:&B5:' 59J !' -J$' 4<?!' <"B' 9-7 :!' ? <:' <8=5' &:' <=:-'R-&"5B' &"' A-?&::&-"!' 4<'4<9B' ><-=59' -' 45' 4-=' %855"' <"B' ?<&H' 95::' (5"' ?8:5' 45' <95' :-' ?<B' .35':4<?5=5::-':85'7-9' 4<' 45' <95' &?;-::&J=5' -' -J<&"!' J8' &7' 45' J5' -6' A-?5' :-' "5<9' <"' 5"B' -7' 45&9' 9<"" '<:' $65 4-;5!' <"B' 45?:5=C5:' 75<9!' 45' 6&=' J5' J=&"B' &"B55B' <"B' ;=<' ?-95' 7--&:4' ;9<"D:' 5 ⍰_' = '4X'!(' 5J'<

1 45' 9&"A5' 6<:' 5L 95?5=' ;-=& 5 -' -459' 5A&=' 5' 5"W8&95B' ?8A4' <J-8' ">=<"B!' $ Ł4595' ":' <' J-' 45' :;5"' :-?5' &?5' $6& 4' 4&=&;' 5' :;-D5' 755=&">=' -7' 45' 6<9!' <"B' -7' 45' ?&:59' 64&A4' &' 6<:' A<8:&">!' <"B' B5:A9&J5B' 4&?:5=7' <:' ?-:' <"LS &-8:' -' J9&">' <J-8' ;5<A5' -J59' 5A&=' ?5" &-":' <' A89&-8:' A&9A8?S :<"A5' 4-8>4' :5"B' 6<:':4-9'-7' ;9-C&:&-":!' 45' ><99&:-"' 6<:' :8;=&5B' =&J59<==' 6& 4' ><?5' 45<:<" :' <"B' ;<9 9&B>5:' 4<B' 7=-89&:45B' 8;-"' 45' 98&":' -7' A8=&C<&-"' 45' 7=56' A-"&"8<==' 6& 4&"' 45' 6<==:' 5A&=' 4<B' ⍰<:5 &">' B-' <"B' "5 :!⍰ <"B' ⍰4-;5B' -' 5<' ;<9 9&B>5:' &"' 5"' -7' 4&:-6"' A< A4&">!' <:D&">' "-' 7<C-89:' -7' 45' =-9B' -7' 45' :-&⍰< , ' '$!L' *6' = ' 4B (3 ' (<9A4' &' -J59' 5A&=' -' 89>4=5 !' (<9A4' *+ _ =44' 4B'!(' -?;<95' =44'88*#'() J1' <2

6 # (<9A4

6&:45B & - J5 : 5"B & :5=7! 4< & ? &>4 :55?- 45 6-9=B <:&7 ;<&" 6<: ?<D&"> 45 <BC<"A5: <9?< -" 45 - 459 4<"B B5A=&"5B -95A->"&:5 5C5" 45 5?S ;-9<9 ;-::5::&-" J ">=<"B -7 45 95C-=5B ;9-;59 -7 4&: ?<: 59$ 45 - 459 B&77&A8= =< &" 45 =&?& <S &-" -7 <9?<@: A-??&::&-" 4&=&;4<B >&C5" 4&?; -659: -95< 7-9 ;5<A5! J8 "-?<D5 <7&"<= <>955S ?5" 6& 4-8 957595"A5 -4&?:5=7! <"B 45 95:59C< &-" <;;5<95B -A-"7&9?45 :8:;&A&-":5" 59 <&"5B :-6&B5= -7 4&=&;@: :&"A59& (5::5">59: 65" J<AD6<9B: <"B 7-96<9B: =&I<J5 4 <::8?5B <4&>4 -"5! <"B 9578:5B -95< < <==! 8"=5:: :45 :<6 459 6< J57-95 459 A=5<9= H 45 9&"A5 <;;=&5B -4&=&;7-9 <" 5L 5"S :&-" -7<8 4-9& 7=< 5! 5C&B5" = ! <"B :&"A5 4&: C<: ;95;<9<&-":4<B J55" A-?;=5 5B! 4&=&; 4<B "5& 459 5L;5A 5B "-9 B5:&95B 4< 45 95< :4-8=B <D5 5775A 5 4<B ?<B5 8;4&: ?&"B! 6& 4 5LA5::&C5 B&77&A8= ! -<B5:5?59< 5 577-9 ! <"B 6<: "-6 8"6&==&">4< :-?8A4 A-: <"B =<J-89 :4-8=B J5 49- C" <6< <9?<! J5 59 <6<95 -7 45 B&77595"A5 &" :8A4 ?< 59: J5 655" A<=A8=<S &-":<"B 95:8= :! <"B B&: 95::5B <: 45 4<B A<8:5 -J5 J 45 6<: 5 -7 4&: -6" <9? ! : &== 45=B -4&: -=B -;&"&-"! <"B B5:&95B -?<D5 45 "5>- &< &-": <95<=& ! < =5<: 7-9 <&?5

7 59 ?5" &-"&"> 45 B&77&A8= &5: 64&A4 4<B J55" 9<&:5B! 45 9&"A5 ;9-A55B:

: ! □ " @%" 3" (/"" " * 4 ! " 5 /" /" 4 * * " " * * 4" " /" * " 4(4" /" "4" /" * " # %" * 4 M ! " @ " " "

Q -89' (<R5: ' -8>4 ' -' D"-6' 6J<' &:' :<&B' 4595'
<J-8' 4&:' 95< !' 64<' &:' :<&B' 5:;5A&<=='J' -89' ?-:'
=- <=' :8JR5A :!' ?5"' 65==$<775A &-"5B' -' -89' (<R5: !'
<"B' -' 45' 95;-:5' -7' -89' 95<=?' <"B' :<5' &:' ?'
B8 ' -' 5==' -8!' 4<' &7' 45' ">=&:4' <95' ;9-A55B&">'
:&"A595= !' <:' ' J5=&5C5' 45?' -' J5!' 5C59 ' -"5' <>955:'
4<' &' C&=' J5' ?-:' -' -89' &" 595:' -' ?<D5';5<A5'
45' ?&:59&5:' -7' 45:5' :87759&">' <5:' 6&==' J5' 45"'
J9-8>4 ' -' <"' 5"B' 45' <4-=&A' 95=&>&-"' 6&==' J5' 95S
5:<J=&:45B' 8"B59' -89' (<R5: @:' <8 4-9& " -8' 6&==
"-' A-"W859' ">=<"B!' J8' -"' 45' -459' 4<"B!' -89'
7=55' 6&==' J5' :5A895!' <"B' -8' 6&==' 9&:D' "-' B&:<:59'
64&A4' ?<' &"R895' -89';9-:;5A :' 4595' 7' -89' (<S
R5: ' B5:&95:' <' A-"A=8:&-"' -7' 45:5' 9-8J=5:' &"' RE-89'
-6"' =&75 &?5!' <' A-"A=8:&-"' :8A4' <:' -B@:'>--B"5::'<"B'
-89' -6"' 49&: &<"' B&:;-:&&-"' :4-8=B' =5<B' 8:' <==' -'
4-;5' 7-9!' -8' A<""-' J5 59' ;=5<:5' ?H-89' =- <=' ;5-;=5!'
-8' A<""-' ?-95' B&:<;;-&" ' 4-:5' 64-' 5"C' R?89'
>95< "5::!' 5:;5A&<==' 45' 4595 &A:!' 4<"' J' "-6' A-"S
:5" &">' -' <:-8"B' <"B' 4-"-89<J=5' <99<">5?5"

Q 595' 45' :& 8<&-"' :8A4' <:' 65' -"A5' 4-;5B' &' ?&>4'
J5!' 4<B' 45' 78"B<?5" <=' ;-&" ' -7' :5A95:' 5:;5A&<=='
J55"' J5 59' -J:59C5B!' 65' ?&>4 !' 6& 4' -B@:' 45=;!' 4<C5'
=--D5B' A-"7&B5" =' 7-9' :-?5' >--B' :8AA5::' 89' <"S
&A&;<&-":!' 4-65C59!' 4<C5' &"' ?<" ' 6<:' J55"' B&:<;S
;-&" 5B' 45' ">=&:4' 4<C5' 4<B' &?5' -' <9?!' J':5<
<"B' =<"B' 45' 4<C5' 45&9' =5<>85:' 6& 4' 5"?<9D!'
<"B' 45' 59?<":!' <"B' 45' 95"A4' 9-5:<":!' 64-'
6&==' B-' <==' 45' A<"!' J5' &' ?8A4' -9' =& =5!' -' &" 597595'
6& 4' 8:' -89' (<R5: @:' &" 5" &-":' <95' J=- C"' <J9-<B!'
<"B' <95' "--9&-8:' -' 5C59 ' -"5' 5' ?8:' 5L;5A !'
45957-95!' 4<' <:' 65==' &"' B&:5?J<9D&">' <"B' ><&"&">' <
7--&">' -"' 45' :-&=' <:' &"' -89' <BC<"A5' <7 596<9B!' 65'
:4<==' 7&"B' <:' ?8A4' 6-9D' <:' 65' A<"' B-' 45' 5"5?'
J5&">';95;<95B' -' 95A5&C5' 8:!' 65' 4<C5' 7565' ?5"' 4<"

#

*M33
(<9A4

65 -8>4 - 4<C5! <"B! <= 4-8>4 -B ?< J5 ;=5<:5B
- : ;<95 8: <" :59&-8: B&:<: 59: 64&A4 <95 "5C59 45$
*M33 =5: : " - & ? ; - : :&J=5! 45 J8:&"5: : ?< H J5 ; - : :&J= <
(<9A4 ;9- 9<A 5B - "5 <"B 45 95"A4 <"B 59?<": ?< J5
<J=5! " - - "= - ? <D5 < B&C59:&-"" &"" 45:5 9-C&"A5:!
J8 - :5"B :8AA-89:&" - ">=<"B & :5=7 -89 (<$
R5: ? 8: :55 A=5<9= 4< 645"" ?< 59: <95 W8&5 5B
45&&5! <"B <=A4595"" &: <><&"" -89 -6"!H -8 A<""
;89:85 -89 ;89; - :5 < -89 =5&:895 " - -"5 A<"" 45""
&" 597595 6& 4 -8 < ;95 5L <: -89 (<R5: D"-6:
A<"" "5C59 =-">J5 6<" &"H H
: :8J?& 45:5 A-":&B59<&-": - -89 ws <R5: 4<
-8 ?< D"-6 45 : < 5 -7 -;&"&-"" 4595 " - 4< <
6&:4 - :49&"D 79-?? -6"" B8 : 7<9 <:=&5:&""
?5! <?95<B - 5L5A8 5 -89 (<R5: @: A-??<"B: k
%<" <A=&&5C5 "- >95< 59 4-"-89 -9 95;8 < &-"" 4<"" &""
=-:&">? =&75 &"" 45 :59C&A5 -7 -B <"B -7 -89 (<$
R5: &:=&D5= ! &"B55B! 4< J57-95 A<"" 95A5&C5
-89 (<R5: @: <": 659! 45 7=55 6&==4<C5 <99&C5B! <"B!
? 4 -B@: 45=;! :4<==4<C5 78=7&==5B 45 A-??<"B:
64&A4 6&==<?C5 6& 4& (5<"64&=5 :4<==A-" &"85
45 95< 4< ! &"" 45 5C5" -7<" 8"7-95:55"" &?;5B&$
?5" ! -89 (<R5: ?< @ J5 <J=5 - A4--:5 45 A-89:5
64&A4 :4<==:55?? -: - -89 <BC<" <>5 (B-8J
&: - "= 645 459 A<"" B-<" 4&">$6& 4-8 ?-95 <?;=5
;-659: 79-?? -89 (<R5: "" 45 <J:5"A5 -7 45:5!
45 ">=&:4 6&==5" 59 &" - "- ;<9 &A8=<9:! <"B 45
"5>- &< &-": ?< < <" & ?5 J5 J9-D5"" -77 - 45
B&:>8: -7 45:5 95A-"A&=5B 9-C&"A5:! 64&A4 =--D -"

8<"B-# (<>/K < <W8&5 <B- =--D5B 7-9 45 :8995"B59 -7 =8:4&">
-B- 5: - 5"><=< :=< B5 #<=$ -4&?:5=7! <"B "- - 45 <5:! ":
A=&595"" Y :8 -J5B&5"A&<! ; -B9Y Y =< -"5 -7 45A-"B&-": -7 45 95<
?<"- :<=C< A8<"B- 78595 :59C&B- K E 8<" - Y ;95 5L -: R8: -:
;9-:5>8&9 :8 &" 5"A&Z" @ &: W8& 5 78"B<B-:! <:<J5 # (<>H W85 "8"A<
A59 <&"" 79-?? 45:5 6-9B: 4< <9?< 7<= <9<" @

Q ;5<A5' <:' A59 <&" ' 7' -89' (<R5: ' C&=' :5"B' ?5' 45:5'
Q ;-659:_ -"= ' 4<' ' ?<' :456' 45?_H-8 ?<' J5'
Q <::895B' 4<' ' 6&=' A-"A=8B5' "- 4&">' 6& 4-8 ' -89'
Q (<R5: @:' ;59?&::&-"@H
<9?<!' &' &:' 95?5?J595B!' 4<B' A-"C59:5B' 6& 4' :5C59<='
-7' 45' :8J-9B&"< 5' ?5?J59:' -7' 45' ">=&:4' A-??&::&-"'
' &:' 5C&B5"' 79-?' 4&:' =5 59' 4<' 45' "-' -"=' J5=&5C5B!'
J8' 75=' ;5975A H' <::895B' 4<' =&I<J5 4' 6<:' ;95R <95B'
-' <J<"B-"' <=' B5?<"B:' 7-9' 95=&>&-8:' -=59< &-"' &"' 45'
< 5:!' <"B' <=:-' -' 95: -95' =8:4&">' &5' :;5<D:' -7' 45'
95$5: <J=&:4?5"' -7' -9<<"&:?' &"' 45' 9-HB"A5:' <"B' 45'
5A-C59' -7' <=A4595"!' <:' A-"A5::&-":' 64&A4' =<' <'
4&=&;@:' -; &-"' -' 95A5&C5' ' &:' 5C&B5"' <=:-' 4<' 45'
=--D5B' -"' 45' A-"W85:' -7' ">=<"B' <:' =&D5=' -' J5' B&7S
7&A8=!' <"B' -"' 4&:' ;-&"' 45' 5L;95::5B' 4&?:5=7' ?-95' <'
=5"> 4' &"' <' :5A-"B' B&:;< A4' 64&A4' J5<9:' 45' :<?5' B< 5
Q ==' &:' 65==' 6& 4' 8:!@ 45' :<&B!' Q:<C5' 7-9' 45' <: -"&:4$
Q &">' <"B' B&: 95::&">' ?-9 <=& ' <?-">' 45' 9--;:' ' &:'
Q :<B' -' 4&"D' 4-6' ?<" ' 4<C5' B&5B' <"B' 4-6' ?<" ' <95'
Q :&AD H' 7' 45' 65" $5&>4' -9' 4&9 ' 4-8:<"B' ?5"'
Q 6& 4' 64-?' ' 5L;5A 5B' -' 5?J<9D!' ' 4<C5' "-' <' ;95:5"'
Q :5C5" 55"' 4-8:<"B' ' <?' B-&">' 64< E' B<"' -' -J$'
Q <&"' 95A98& :' 79-?' 59?<" ' 45' B5< 4' -7' <" < 98I'
Q &:' ?-:' 8"7-9 8"< 5' 5' 6<:' <'>--B' :-=B&59!' <"B' <"'
Q 5LA5==5" ' :5<?<"' -8' 4<C5' =-:' <' C<=8<J=5' :59C<" ' &"'
Q 4&?!' <"BK 45' 7=55' &:' B5=< 5B' 8' 45:5' <AA&B5" :' <95'
Q &"' 45' 4<"B:' -7' -B!' <"B' 65' A<"' J8' 4-;5' 4<' 45' &:'
Q B-&">' 45' J5:' 7-9' 4&:' -$6"' >=-9 !' <"B' 7-9' 45' :8AA5::'
Q -7' 45' 5" 59;9&:5' 89' ;89;-:5' &:' :-' "- -9&-8:' <"B'
Q 45' :&>":' -7&' ' :-' -JC&-8:!' 4<' < 5?; :' <' A-"A5<=?5" '
Q <95' 78 &=5' 595' ' -' <775A E' :-?5' - 459' ?-C5?5"!

K 45' 9&"A5' -7' <9?<' -' 4&=&;!' B5' =-:' ?8A4-:' W85' 4<"' ?859 -' ' B5'
H=<9A4' *+$.+!*M33 _ ' H ' =-:' ?8A4-:' &"759?-:@
O Q :' =<' ?X= -9' =<: &?<' B5=' ?8"B-

*M33
(<9A4

G

(<9A4

 :4-8=B J5 4&-6&"><6< ?5"!<"B 4&: 95< &: 45
 -"= D&"B -7 75&" 64&A4 &: "-6 ;-::&J=5
 : - ?-"5 ! <::895 -89 (<R5: <?&"5L 95$
 ?& -89 48"B95B 4-8:<"B A9-6":! 64&A4 4-9$
9-65B &" " 659;! J5 655" 5LA4<">5 <"B &" 595:
6595 J8 4&55 48"B95B 4-8:<"B645" 45 A<?5&" -
? 4<"B: 45 <95 <=95<B >-"5! <"B <?6& 4-8
95:-89A5 <; &: < B5 <::&: 4<: <; ;=&5B 7-9 <"- 459
=-<"! J8 4<: 95 89"5B 5?; $4<"B5B -89 (<R5:
?8: =--D -& ==6&==7<&= C& 4-8 ?-"5 4<C5 <
?-=5 <9? -7 <== "<&-":! <"B 4595 6&== J5 ?8&"
<"B && 5;<9<J=5 B&:-9B59 45 -9B ?< ;89;-:5 -
A4<: &:5 8:7-9 -89 :&":! ;594<;:! 6& 4 :-?5 :4<9;? ?&:$
7-9 8"5H ;<"&<9B: <95 45 :&"56: -7 45 5" 59;9&:5
7 45 9?<B< J9&">: ?5 :&L 4-8:<"B! :4<== : &== J5
8"B59$789"&:45B ("8?J59: B&?&"&:4 B<&= C45"
 :4<== 4<C5 =<"B5B! ?8: 7&>4 J< =5 <7 59 J< =5
 :4<== =-:5 ?5" J C-8"B:<"B B&:5<:5 ?8: =5<C5
B5 <A4?5" : J54&"B ?5! -D55;-;5" ? A-??8"&A<$
&-": <"B &" < :4-9 &?5 45 J-B -7 ? <9? C&=
J5A-?5 :- C5<D! 4< "- -"= ?< J5 8"<J=5 -<B$
C<"A5&" 45 7<A5 -7 45 5"5? !<"B &?5 ?< J5 >&C5"
- 45 4595 &A: <"B -89 (<R5: @: - 459 5"5?&5:E -
&" 597595! J8 4595 ?< 7<== -8 :-?5K"- <J=5 &"A-"C5K
"&5"A5! 6& 4 45 =-:: -7 5C59 4&">! <"B J5 8"<J=5 -
95?5B & H & 4 &":877&A&5" ?5<":& &: 4<9B -
<AA-?;=&:4 &?;-::&J&=& &5: ?8: 45957-95 5" 95<
-89 (<R5: 4< 4595 J5 "5& 459 "5>=5A "-9 B5=<
-89 &>4"5::?8: ;9-C&B5 4< 4595 J5 "- B&C59$

* <9?< 6<: J5 59 &"7-9?5B -" &"C& &">- -;=8"B59! <"B < 45 :<?5
45 95<= "<895 -7 45 $6-9D J57-&5 &?5 45 5<:&5: - -C5998" (: 5: <9!@
4&?' 4<" 89-;5<" <4-=&A-;&"&-" 45 69& 59 <B?& :! 7-8"B :-?5 B&77&S
4595 &:&"" 45 5A-9B 77&A5<A-; A8= :5:<9 95W8&95B >95< ;95S
-7 <"" <=&<"" <BB95::- =&&=&;&"S ;<9<&-"" <"B =<9>5 95:-89A5: @ 8
C& &">4&?- 45 A-"W85:-7 ">S 45 A<:5:6595"-;<9<==5=! ">=<"B
=<"B! B5:A9&J&">&<: 45 9&A45: 4<C&">&"" ?:<9@:&?5<=<9>5 ;-;8S
A-8" 9&"" 45 k 6-9B! 45 ?-: =<&-"@_ *M33

(:&-"' 79-?' <" ' -459' W8<9 59!' <"B' 4<' &"' A<:5' -7' <AA&$ #
(B5" !' 45' 9?<B<' J9&">:' 6& 4' &' <"' <9? ' -7' 95:59C5
(77<&9:' -7' 4&:' D&"B' <95' A-:=!' J8' -8' ?8:' "-' =5' *M33 .$%7
(5L;5":5' B5 59' -8' 8AA5::' &"' 45:5' 5" 59;9&:5:' B5$
(;5"B:!' "5L' -' 45' 7<C-89' -7' -B!' -"' 45' A-?;=5 5"5::'
(-7' J5' ;95;<9<&-":@H

45' ?-B5:' >--B' :5":5' -7' <9?<' ?&>4' 4<C5' ;9-S B8A5B' :-?5' 5775A' -"' 4&=&;!' J8' 7-9' 45' 7<:A&"<&-"' -7' 45' ">=&:4' :8AA5::&-"!' <"B' 45' ?&:=5<B&">' A=<?-89' -7' ==5"' <"B' <9:-":!' 64-' ?5<:895B' ;&@-J<J&=& &5:' J' 45&9' ;<::&-":!' <"B' <::895B' 4&?' 4<' 4<=7' ">=<"B' 6<:' 95<B' -' 9&:5' &"' <9?:' -' 65=A-?5' 4&?' 5' :5"' 45' ;-65&@:' / $4&A4 <9?<' <:D5B' 7-9!' J8' -"=!' <:' 45' <B?& 5B!' -' <&:7' 4&:' 95A-"A&=5B' :8JR5A:' &"' =<"B59:' <"B' 9<S J<"!' 64-' ?&>4' A-?;=<?' &7' 45&9' 6&:45:' 6595' B&:95S ><9B5B!' <"B' 45' :5"' 6& 4' 45' A-??&::&-"' <"' &" &?<&-"' 4<' &' 6<:' -"=' -' J5' 8:5B' -' ;9-9<A' 45' 95<' &==' 45' 7=55' <99&C5B

45' "5>-&<&-":!' 64&A4' 4<B' "-6' J5A-?5' <' ;95 5"A5' -' B5A5&C5' =&I<J5 4!' 4<B' B5A5&C5B' <=:-' 5L 8:' <"B' 45' <9B&"<=:' 45"' =&C<95I' <5?;5B' -' -J <&"' <"' <BS C<"A5' -7' ?-"5!' 45' 6<:' ?5' J' <' A-"75::5B' :8:;&A&-"' 4<' 45' (-:' <4-=&A' &">' 6<:' <5?;&">' -' A45<' J&:' -=&"5::' 45' &?;8<&-"' -"' 4&:' >--B' 7<& 4' &"' :8A4' H W8<9 59!' 45' 95;9-<A4' 64&A4' 45' 6<:' <::895B' 6-8=B' 7<==' -"' 4&?' &7!' <7 59' :-' ?8A4' 4<B' J55"' B-"5' <"B' <=D5B' -7!' 45' =57' 45' "5:' -7' 4595:' &?B&: 89J5B!' A-?J&"5B' -' ;8:4' 4&=&;' 7-96<9B!' <"B' A=-:5B' 4&:' 5<9:' -' 45' :8>>5:S &-"' -7' ;-::&J=5' 7<&=895 H' 594<;:!' --!' 45' 6<:' :5A95=' "A-89<>5B' J' <AA-8" :' -7' 45' %855"@:' B&:;-:&&-"!' #4&A4' 6595' 789"&:45B' 4&?' J' 45' 9<& -9:' <J-8' 45' -89' #4&=5' ==5"!' <"B' <9:-":!' <"B' ">=57&5=B' 6595

@ <9?<' -' 4&=&;!' (<9A4' *+$.+' (<9A4' .!' (<9A4' *3!' (<9A4' .*!' ;9&=
% 1 _
=&C<95I' -' 4&=&;!' 5J' ..!

<99<">&"> 45 B&: ; - :& &- " -7 45 ;8J=&A -77&A5:! -9 B&:H
A8: :&"> < 95B&: 9&J8 &- " -7 ; 9- ; 59 C& 4 =&C<951! <"B
45 ;98B5"A5 -9 &? ;98B5"A5 -7 < >5"59< ?5<:895 -7
A-"7&:A< &-"!H =&I<J5 4 6<: < 459 -=B A-89:5: (:55
("- B&: ; - :& &- " &" 459 (<R5: !(69- 5 <=:&">4<&"!
C45" 45 :4<B-6 -7 45 9?<B< 6<: <=95<B ;&@-R5A &">
-C59 ">=<"B! Q :55 "- B&: ; - :& &- " &" 459 (<R5: -
(<D5 < 4-9-8>4 A-89:5_ < ?<""59 -7 ; 9-A55B&"> C5
(4-=B &" <= -89 <A &-":! J- 4 < 4-?5 <"B <J9-<B!
(64&A4 J955B5 4 J- 4 B<">59 <"B B&:4-"-89 @H

45 5L ; 5A < &- " -7 < A< <: 9- ; 45 &? ; <&95B 45 C<=85
-7 =<"B5B ; 9- ; 59 45" 45 7=- C59 -7 45 -?<"
-8 4 4<B 7<==5" < <""?! 45 A-"7&B5"A5 -7 45 ;5- ; =5
C<: :- =& =5 :4<D5" 4< 45 >9-8"B -" 64&A4 <""&$
J<=@: <9? 6<: 5"A<?;5B 6<: :-=B &" 45 7-98? < & :
8:8<= ;9&A5 &9 &==&<? 989 ! 69& &"> - 89>4=5
&" 45 :RH9&"> -7 *M33! <J-8 45 ;< ?5" -7 < B5J -
45 %855"! :<&B! 4< 4&: 875 6-8=B :5== 459 R565=: -
:<C5 4&? 79-? 4<C&"> - ;<9 < < =-: 6& 4 4&: 5: <5!
(7-9 "- ?<" 6-8=B >&C5 <" 4&"> <: =<"B 6<: 6-9 4!
(J5A<8:5 45 75<95B < 4<9B 6-9=B @H

45 D"- C=5B>5 -7 4&=&;@: 95<= &; 5" &-": B&: ;5":5:
6& 4 45 "5A5: :& -7 ; 89:8&"> &" B5 <&= 45 789 459 =&&:$
-9 -7 45 95< ! 64&A4 <":6595B "- ; 89; -:5 :<C5 -
>&C5 =&I<J5 4 <" 5LA8:5 7-9 &"<A &C& ! <"B - ?<BB5"

(I %8&5" :59&<" =<: ;59:-"<:"-J=5: A<=&7&A<B-:! Y W8&5" :5 ; -B9X<4-"9<9 B5 ?< -95: X 8=-: A-" =-:5: <B-: B5 =-: 4595>5:! 5" =- A8<= 4< A-"S 759&B- =<"- A-"?&>-! ; <95A5 W85 "- :5 ; 85B5 95:-=C59 5: - :&"- :-J9< =< -J9<! ; 85: B5 9< ?<"59< :5 W8&S <9X<=< 5: ; 59<"7< B5 =-: W85 :5 W8&S :&5:5"A-"C59 &9! =-:W85 4<: <<>-9< ?595A5" ; -B9X<" B5:?595A59 J B&:S A8J9X9:5=5 <=>]" B5?59&- B5 <W8& <==Y <?J&`"  - 9-:  ?<:  J5"5?`9&S -: B5 W85 4<: < <>-9< "; :5 &5"5 "- &A&<" ; 59- J&5" R8I>< 5= <9B&"<= W85 :5< A-"C5"&5" 5 =85>- W85 5: 5 5" J85" 5: <B- =< A-"W8&: < &9 ; 95! ?&<"B- Y <=>8"-: BY"B-=-: X 8=-: ;9-C559=-: -J&: ; <B-:!(\A _ K > & OLMD . . 5J959-! *M33 K <=:&">4<? - &9 &==&<8& 8: :5==! ; 9&= 3$&3 _ (N K 989 - 89>4=5 ! (<9A4 +

45' 8"7-9 8"< 5' 9-C&"A5:' ' 756' 75< 895:' -7' &' -"=' 95W8&95' -' J5' "- &A5B' &L' 655D:' 6595' A-":8?5B' J5S 7-95' <' ;=<A5' A-8=B' J5' :5=5A 5B' 7-9' 45' -? ?&::&-"59:' -' ?55 !' 45' ">=&:4' : <"B&">' -8 !' <:' <' ; -&"' -7' 4-"-89!' 4<' 4&=&;@:' 95;95:5" < &C5:' :4-8=B' A-?5' 7&9:' -' :$ 5"B!' &7' &' 6595' J8' 7-9' <"' 4-89' <9?<' <' =<:' A-"S :5" 5B' -' <' A-?;9-?&:5' 9' ->59:' <::895B' 4&?' 4<' &7' 45' 6-8=B' &5=B!' 45' %855"' 6-8=B' "-' -"=' :89S 95"B59' 45' A<8&-"<9' - C":' -' 4&?!' J8' &7' -==<"B' <"B' T5<=<"B' A-" &"85B' -J:&"< 5!' C-8=B' <::&:' ;<&"' &"' 95A-"W859&">' 45? H' 45958;-"' 45' :5" ' &A<9B-!' 95S :&B5"' -7' 45' -8"A&=' -7' =<"B59:!' :5?&$-77&A&<= H' -' :5"B!' <"B' <==-65B' 45' 7&9:' A-"7595"A5' -' J5' 45=B' P"B59' 5" :!' <A<""-"$:4-' -8 :&B5' 45' B575"A5:

595!' -"' 45' && 4$<&:' -7' ;9&=!' &A<9B-!' B5' =<' (-5!' <"B' -459:' 65" ' =&9-8>J!' -"' J54<=7' -7' ;<&"!' 45' 7-9?<=' ;95=&?&"<9&5:' -7' <' 95<' <9?<' 4&?:5=7' ?5<"$ /PB&-5! B&:>8&:5B' <:' <' 9<JJ& $A< A459!' 6<"B59&">' <?-">' =&5' :<"B4&==:!' <"B' <D&">' <' :89C5' -7' 45' 95" :' &"' 45' 7-9 &7&A<&-": K=H' & =5' 6<:' B-"5!' 7-9' 45' 78==59' ;-659:' 7-9' 64&A4' <9?<' 4<B' <;;=&5B!' 4-8>4' -"' 45' 6<!' 6595' 4-' ?@5' <99&C5B' 45' ">=&:4' <:D5B' 7-9' <"' <9?&:' &A5!' HPA=8B&":9' ">=<"B' <:' 65==' <:' 45' 9-C&"A5:!' <"B' A-C59$' K8>' 45' 7=55' &"' 45' <>8:' ' 6<:' 9578:5B!' 5LA5;' 7-9' #<=A4595"' <"B' :5"B' &:5=7' 9->95::' 6<:' 45"' 95$' 4-9 5B' -' -"B-"!' <"B' 45' "5L' :5::&-"' 6<:' -9B595B' -45=B' <' 98>5:

"B' "-6' 45' 9- 5"' 7-8"B<&-"' -7' 45' 64-=5' ;9-$

K@%85' ;-9' 5:' <' ;-A<' 4-"9<' W85' 4<9Y=<' 5 "<!' 5=<' "-' :-=-' 95:' &$ Y' #' (<>EK' -B-' =-' W85' &5"5' H-:-' 5:' <B-:!' ?<:' < 8B<9Y' Y' A-J9<9' ;<9 5' W85' W85B<95' -J:&"<B< #' ' - % ' ' - '0' 2 B5' 99&=' % U@(5' ?5X' -' B&:79<A<B-!' ' ?&5"S <:' B89Z' =<' ;=<' &A<' ' A-?&B<' W85' <?J&`"' :5=5' 4<J&<' ?<"B<B:-' <;95:S <9' <==X' 95A-"-A59!' A-"' <A4<W85' B5' <"B<9' Y' A<^<' B5' A-"5R-:' ;-9' =<:' 8"<:!' =<7-9&XA<A&-"' A-"' =-' W85' B5S :5<J<' B5=<' ;=<^<!' A-"7&9?Y"B-?5' A-"' 8"' ">5"&59-' W85' 5"' 7&>89<' B5' A9&<B-' 4<J&<' 5"C&<B-' A-"' 5=' 5A95' <9&-' <9S "&59'=<:' C5A5:' W85' <==X' 78` - % ' ' P ' ' *F' B5' (< -' '

A55B&"> J5A<?5 < - "A5 <; ;<95" 59J ! -J=&<"&!
&9 ? <: <8=5 ! <"B 9 <=5 4<B J9-8>4 C<>85E
; 9&= &": 98A &-":! :8A4 <: =&I<J5 4@: -8"A&= J<B J55"" &"S
B8A5B -: :<"A &-" &9 <?5: 9-7 :! 64-: ;9-75::5B -
;-::5:: < D"-6=5B>5 -7 45 %855"@: 95<= &" 5" &-":
64&A4 6<: "- 5L 5"B5B -: 45 - 459 -??&::&-"59:!H
--D 8;-"" 4&?:5=7 &"" 45 ;<8:5 64&A4 7-==-65B -: >-
<=-"5 -: 45" ! <"B :;5<D ;9&C< 5= HC& 4 <9?< 5
B&B "- &?;95:: 45 9&"A5 6& 4 4&: 6&:B-?! J8 45 =<&B
;9-;-:<=:: J57-95 4&?: 64&A4 45 :<&B 4< 45 %855"
6-8=B A-"7&9?: &7 45 6-8=B :5"B -C59 < :5A95 <& 64-
A-8=B B5<= 6& 4 459 <=-"5 <"B@ 45:5 ;9-;-:<=:! <:
95;-9 5B J E 45 9&"A5 - 4&=&;! <>955 ;95A&:5R 6& 4
<"- 5 -7 45?: &"" 45 ">=&:4 5A-9B:

AA-9B&"> - 45 -7&59 -7 9-7 :! 45 -=B 95< &5: J5S
655"" ">=<"B <"B 45 4-8:5 -7 89>8"B 6595 - J5
95"565B! <"B < A-??-"" A-89:5 6<: - J5 <>955B 8;-""
-"" 45 ?5<": J 64&A4 -==<"B <"B T5<=<"B ($595 -
J5 95A-C595B - 45 -J5B&5"A5 -7 45 &"> -7 ;<&"
45 &"> 6<: @ - <==-6 :8A4 -=59< &-"" &"" ?< 59: -7
@ 95=&>&-"" &"" 45 P"& 5B 9-C&"A5: <: 45 ?&>4 B- 6& 4
@ A-":A&5"A5 <"B 4-"-89!@ <"B 6<: "- @ 45 ;<"&:4 <"B <4<"" 9--;:
6595 - J5 6& 4B9<6"! <"B 45 -=B <B?&"&: 9< &-"" 95S
: -95B 7 4&=&;: 6-8=B A-":5" - 45:5 A-"B& &-":!
45 -" 9-==59 8"B59 --D! &"" 4&: ?&: 95::@: "<?5! 4<
:45 6-8=B &K5: -95 - 4&?: 45 A<8 &-"<9 -6":: <"B <==
- 459 -6":: <"B 7-9 95::5:: &"" 45 -AA8;< &-"" -7 ">=&:4
9--;: H

45:5! & 6&== J5 -J:59C5B! 6595 45 : &;8=< &-":: 64&A4
4<B <;;5<95B 79-?: &?5 - &?5 49-8>4-8 45 45>- &<$

K@ 9 &A=5:: 064&A4 &9 <?5: 9-7 : "A=-:5B &"" <=5 59 79-?: <99<"" -
4< 4 4-8>4 >--B - ;9-;-8"B!@ 4&=&;! -7 45 &F 4 -7 (< _ *
;9&= F+$ (< *+ _ ! %
8" -: ;9-;85: -: ;<9 <?5: 9-7 :

&-"' <:' 95;95:5" &">' =&I<J5 4@:' ;59:-"<' C&56:!' <"B'
6595' &?;=&5B' 79-?' 45' J5>&""&">' &"' 45' C59 ' "< 895'-7'
& ' 45' =<:' <"B' ?-:' B&:4-"-89<J=5' <9 &A=5' 7-9' 45'
:8995"B59' -7' 45' -6":!' 45' 9&"A5' B5:A9&J5B' <:' 45'
7-8"B< &-"' -7' 45' 95< !' <"B' 6<:' 45' 7&9:' 64&A4' 45' 95S
W8&95B' -' J5' ;8'&"' 5L5A8 &-"' <:' <"' 5C&B5"A5' -7' :&"A595'
?5<"&">' 5!' -"' 4&:' ;<9 !' 6<:' 6&==&">' -' A-":5"' -'
45' 6& 4B9<6<=' -7' 45' 9--;:'' "-' 4-65C59' &==' -==<"B'
<"B' T5<=<"B' 4<B' A-?;=5 5=' :8J?& 5B'' <"B'&7' 45' 59?:'
6595' 95<==' -77595B' 6& 4' 45' %855"@:$:<"A &-"!' <"B' &7'
45' 4<B' J55"' <AA5; 5B' J' <9?<!' :45' 6-8=B' 4<C5' J55"'
-J=&>5B' &"' :5=7$B575"A5' -' 8"& 5' 6& 4' =&&=&;' &"' 5L &"S
>8&:4&">' 45' 95?<&":' -7' 45' 95C-= !' -9' :45' 6-8=B' 4<C5'
=-:' 45' -JR5A' 7-9' 64&A4' :45' 6<:' ?5B& < &">' :8A4' B5S
5: <J=5' 95<A459' -' 6-"B59' &9' &==&<?' 8::5=='
:4-8=B' 69& 5' 79-?' =8:4&">' Q 4<' 4&:' 8"4<;;' ;5<A5'
Q 4<B' J55"' 45' A<8:5' -7' <==' 45' B&::5":&-":' <"B' -7' <==' 45'
QR5<=-8:&5:' J5 655"' 45' < 5:' <"B' ">=<"B @H' -'
-"B59' -9B' -6<9B' Q ;9< 5B' -B' 4595' ?&>4' "-' J5'
Q A<8:5' -' A89:5' <' =-">' >95' J5<9B' 6& 4' <' 64& 5' 45<B'
Q 6& =5::!' 4<' 6-8=B' ?<D5' <==' 45' 6-9=B' 4&"D' ">=<"B'
Q 45<9 =5::@H' -' 6-"B59' 89>4=5' 75<95B' 4<' 45'
< 5:!' ?<B5' B5:;59< 5' J' :8A4' 7<=:5' B5<=&">!' 6-8=B!'
<==' -9' ;<9 !' 95<' :5A95 =' 6& 4' <9?<' 7-9' 45&9' -6"'
;5<A5!' <"B' 4<' 45' %855"!' -8 ?< A45B' 6& 4' 459' -6"'
5<;-":!' 6-8=B' J5' 7-9A5B' -' A-" &"85' 45' 6<9' <=-"5' -9'
:8J?&' 8;-"' Q&" -=59<J=5' A-"B& &-":@O

C59 ' &" 5==&>5" ' ;59:-"' &"' ">=<"B' -9' -8' -7' &' 64-'
6&:45B' 65==' -' 45' %855"' 95><9B5B' 45' 95< ' <:' ?<BS
"5::' 5' :45' <==-65B' 459:5=7' -' J5' ;59:8<B5B' J' <'
B5=&J59< 5' 9<& -9!' 64-' 6<:' 95A5&C&">' ;<' 79-?' ;<&"!

Q &C' ?' 8<:5==' -' <=J&">4""&!' <"' 1,$ -J' 2_ =44' 5*. $!3
=&"9A4' .2$;9&=' M_ ' (' 89>J=5' -' <=:&">4<?!' 5J'
K -9B' -6<9B' -' "=:&">=&<&"! 2$*2_ '

#

*M33
(<

4< : -=B&59: =&D5 -9B -6<9B -7 77&">4<?: B5:&95B 6<9 J5A<8:5 45&9 9<B5 6<: 7&>4 &">" ; -=& &A&<": =&D5 <=:&">4<&" <"B 89>4=5 ! 79-?: 9- 5: <" J&>- 9 " <"B 45 P"& 5B 9-C&"A5:! 4< 45 ?&>4 ; 95 -" 459 5LA45W859 H &9 <?5: 9-7 :4<B 7-9 6- 5<9: J55" &" &" &?< 5 A-??8"&A< &-" 6& 4 459 -" 45 :8JR5A -7 45 ;5<A5 &: "-A-"A5&C<J=5 4< 45 6<: &>"-9<" -7 459 6&:45: 4<9<;<>" :<&B 4< 4&: C&:& - <9?< 4<B 6-9D5B <?&9<A=5! <"B 4< ;5<A5 6<: A59 <&" H 5 6<: 4&?:5=7 A-"7&B5" 4< 64< 45 4<B B-"5 6-8=B J5 <;;9-C5B! <"B 45 69- 5 - 89>4=5 &" 45 4&>45: :5=7$:<&:7<A&-" O

45 &">4<C&">B5 59?&"5B 4< 45 95< :4-8=B 5"B &" "-4&">! 45:5 &>"-?&"&-8: A-"A5::&-": 6-8=B 4<C5 J55&9 - "- ;89;-:5 4<B 45 %855" 7-9?<== 5"S B-9:5B 45? 8 &6<: -"5 4&"> - B5:&95 ;9&C< 5= V A-"C5"&5" A-"A=8:&-"! - <=D<J-8 &! <"B :< 4< :=&< 6-8=B 4<C5 & : -& 6<: <"- 459 - ?<D5 8; 459 ?&"B ;9<A &A<== - 64< "-: -;4&: 9 A-8=B 5LA8:5 -9 &7 :45 A-8=B J9&"> 459:5=7 - &! - A<99 45 -8"A&= <=-"> 6& 4 459 45 -" 9-==59 6<: :5C595= 95J8D5B 7-9 4<C&"> ;95:8?5B - >- J5 -"B 4&: -9B59: 5 6<: -9B595B 4-?5 - ">=<"B - 5L;=<&" 4-6 45 4<B ;&$5:8?5B - 6<B5 :- 7<9 6& 4-8 B&95A &-": <"B < "-5 &" -9B

K 4-:5 4< 95A-??5"B 6<9 95A-??5"B & 7-9 :8"B9 95:;5A : :-?5 7-9 6<9: :<D5! <: 4-8=B B- ;594<; :&7 6595 -8"><"B<:-=B&59" - 459: 7-9 95=&>&-" - 459: 7-9 :;-&= <"B 9-JJ59 ! 64595-7 -89 (<R5: 755=5 4 - -?8A4 45 <95 <==&"S A=&"5B - 45&9 ;5A8=&<9 &" 595: :! A<9&"> "-4&"> 7-9 45 9&"A5: 95<S :895! 45&?;9-C59%:4&"> 45 :8JR5A ! <"B 45 -C59 49-6 -7 9<B5 &: ?B8 - 95?&"B -89 (<R5: 4<&7 -8 B- "-: <"B 7<: &" 64< &: J5: 7-9 45 64-=5 5: <5 <"H A-??-"65<= 4! ?<" ;9<A &A5: 6&= 45 8:5B - ;59:8<B5 -89:5=7 <><&": -89:5=7 _ 779 5 2 5J 1.$(<9A4 1 % K 4<?;<>" - 89>4=5 ! (< F$ H O 9-7 : - 89>4=5 ! (< * * K 45%855" + 45 +; + 4" < : 5"B! (< 3 <"B (< QR _

89>4=5 @:' 4<"B' &?;=&5:' 4<' 645"' 45' W85:&-"' 9-:5'
<><&"!' 45' 9&"A5' 6<:' -' J5' -=B' 4<' 5C5"'&7';5<A5' 6<:'
?<B5' 45' %855"' C-8=B' "-' :8995"B59' 45' A<8&-"<9'
-6":' &==' :45' 4<B' J55"' 95;<&B' 45' ?-"5' 7-9' 64&A4'
45' 6595' 45=B' <:' :5A89& &5:'&7'<';5<A5' 6<:' "-' ?<B5'
&"' C4&A4' 45' 9-C&"A5:' 6595' A-?;9545"B5B!' :45' 6-8=B'
"-' B5=&C59' 45?' <' <= H ' :-8"B' <"B' 4-"-89<J=5' 95S
:-=8&-"!' 5' <' 95:-=8&-"' 64&A4' :8=&7&5B' 45' 5" &&$5 "5S
>-&<&-"' &"' 64&A4!' :45' 4<B' <==-65B' 459:5=7' -' J5' 5"S
<">=5B' 45' 4<B' W8<995==5B' 6& 4' 45' <5:!' :45' 4<B'
<==-65B' 459' <9?' -' J5' 6<:5B!' <"B' 5C59' <BC<" <>5'
64&A4' :45' A-8=B' 4<C5' B59&C5B' 79-?' 459' <==&<"A5' 6& 4' 45'
<5:' -' J5' 79& 595B' <6<!' &"' ;89:8&' -7' <' 95<' -7'
64&A4' 45' :8995"B59' -7' 45' -6":' 6<:' 45' 7&9:' <"B' ?-:'
-JC&-8:' A-"B& &-"_ :-' -JC&-8:' 4<' &"' 5C59' 6-9B' 64&A4'
<9?<' -9' =&&=&;' 4<B' :<&B' &"' 65&>4&">' 45' A-?;<9<&C5'
<BC<" <>5:' -7' 6<9' -9' ;5<A5!&' 6<:' <::8?5B' <:' <' ?< 59'
-7' A-89:5' 45' &?;-::&J&=& ' -7' A-":5" &">' -'&' : <95B'
459' &"' 45' 7<A5' 645"' 45' ?-?5"' 7-9' <A&-"' A<?5' ' &:'
;9-J<J=5' 4<' 5C5"'&7'=57' -' 459:5=7':45' 6-8=B' 8"B59' "-'
A&9A8?:<"A5:' 4<C5' <A 8<==' B-"5& ' J8' -' 4<C5' ;=< 5B'
&4' 45' 4-8>4 " -' 4<C5' 6&: 5B' 45' ;8J=&A' ;-=&A' -7'
45' A-8" 9' -8' -7'&:' "< 89<=' A-89:5' -' :5A895' <"' -JR5A E'
4&A4' 5C59' &" 5==&>5"' ?<"' &"' 89-;5' D"56' 4<' :45'
A-8=B' < <&"' -"=' J' B&:4-"-89!' 6-8=B' <=-"5' :8&7&A5' -'
B&:W8<=&7' =&I<J5 4' 79-?' J5&">' A& 5B' <:' <"' 5L<?;=5' -7'
45' A<;<A& ' -7' 75?<=5' :-C595&>":

45' ?&:A4&5C-8:' 5775A:' -7' 45' 95<' 6595' "-' =&?& 5B'
-' 45' <5:!' 7-9' <:' =-">' <:' &' 6<:' &"' ;9->95:' =&I<J5 4'
C-8=B' "5& 459' :<"B' C&>-9-8:=' -' 45' B575"A5' -7' ">=<"B'
4-9' ;9-C&B5' 459:5=7' 6& 4' <==&<"A5:' 5=:5645595' 59' ;-S
=&A' 5C59' 64595' 6<:' ;<9&<=!' 755J=5!' <"B' 795 78=' 5"9'
-7' <C<995' &"' 89>4=5 @:' -;&"&-"' 6<:' (' 45' 4&">5' -7' 459

H - 5:'&"' 89>=&=5 @:' 4<"B!' (<' *M33 _ =44' 4B'!(

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<

:5A8&E& @H 45" 45 5<>85 7&9: - -D <9?:: :45 4f<B
:5" 4&?? -"5 6& 4 45 A-":5" <"B <=?-: < 45 95S
W85: -7 45 &"> " ">=&:4 :8J:&B 4<B 5W8&;;5B
45 <9? 7-9 45 7&5=B 64&A4 4<B 7-8>4 $<"B 6-" <
-8 9<:! J8 6& 4 45 ;9-:;5A -7 ;5<A5 :45 4<B B9<6"
459 ;89:5$: 9&">:! <"B 6-8=B :8;;= " -? -95 H 4&=&;!
4-8>4 45 D"56 "- - " 64< :&B5 -= --D 7-9 78"B:!
7-8"B ?5<":: "- 6& 4: <"B&"> -7&==: 45 A45: -7 45
8D5 -7 8&:5 5 8"B5&@: --B 4< &7'45 6<:: -&"C<B5
">=<"B 45 ?8: D55;' 45 95"A4 -89 -AA8;&5B! <"B
< 45 J5>&""&"> -7 c f <7 59 45 :8995"B59 -7 45
59?<":: -" 45 -&95! 45 8D5 6<:: : &== < 45 45<B
-7 4&:: <9? ! <"B B&A < &"> 59?:: -= 45 &"> 45
8>85"- :! -" 45 - 459 4<"B! 64-= 4<B A-"W8595B <
-8 9<:: 6595 B&:;59:5B 7-9 6<" -7 ?5<":: -= 4-=B 45?
->5 459! <"B <= 4-8>4 45 &"> 4<B <><&" =5 =&I<$
J5 4 D"-6! 49-8>4 <77-9B! 6& 4 64< B5=&>4 45
6-8=B 45<9 4< :45 6<:: 5"<J=&"> <C<995 -= 4-=B 8;
4&:: 45<B! :45 A4-:5 -= 4&"D 4< 5L;5":5 4< 6< 6<:
"-= -">59 "5A5::<9 ! <"B 4<B 7<: 5"5B 459 4-;5:: 8;-"
"B95<: B5 --5 <"B 459 B&;=-?<A 45 < <" 9< 5
6<:: &" "-6<" -7 ?-"5 45 4<=7$?&==&-" 64&A4 :45
4<B 95:59C5B &" 459 95<:89 6<:: : &== <;;<95" = 8"$
95"A45B 8;-" 89>4=5 ! 64-= 4<B 45 A4<9>5 -7 45L
7&"<"A5:! 6-8=B "- : -= -7 5" 4<C5 =<?5" 5B 459 8"S
:5<:-"<J=5 ;<9:&?-" &7 6<" -7 ?5<":: 4<B J55" 45
A<8:5 5<9=< 59! 645" 45 <:;5A -7 45 6-9=B 4<B
A4<">5B! :45 6<:: <J=5 6& 4-8 577-9 -= 49-6 <"
<9? &" -9 8><= 59 5LA45W859 &:: <? : 59 45
4<B J55" 4-"-89<J= :;<9&"> &" <;;= &"> -= <9=&<&;5"
7-9 :8J:&B&5: 45 4<B J55" =5"&5" &" 5L -9 &"> 45

E @ <9B-= - &8:: "-: 995 75=&A& < &: @ <"B ?8: 5=: 459 -$B< 6& 4 64<
K K 48:!@ $69-5 89>4=5 ! 8 -8 B<">59:: :45 :55D5 4 -= :;<95 @/$
:55 4-6 459 (<R5: A<" 7&"B ?5<":: + 7 8 2 $* ' !(2 '. 5; &3"
< :?<== 4-=5:: -: -;' 459 -6 " =&>4 ! *M3, =44 *$(($!3

=5><=' 7&"5:' 79- ?' 95A8:<" ' < 4-=&A:!' <"B' 8" 6&==&">' -' 8:5' 459' ;- C59:' -7' A-"7&:A< &-"' -C59' 45' 5: < 5:' -7' 45' 95S 78>55:!' J8 ' J ' 4<9B' 4-8:56&759 !' J ' 9&>&B' 5A-"-? !' J ' =5<C&">' 459' -6"' :-=B&59:!' -' : <9C5!' <"B' J ' <==-6&">' 459' 6&==&">' :8JR5A :' -' :59C5' 45&9' A-8" 9 ' < ' 45?' -6"' 5L;5":5!' :45' 4<B' A-" 9<A 5B' 459' -8 =< ' 7<9' 6& 4&"' 459' 95C5"85: ' 59' "<& -6' 4<J& :' 4<B' J5A-?5' < :5A-"B' "< 895' -' 459 ' 45' D"56' 65==' 4< ' 4595' 6<:' < &?5' -' :;<95 ' 45' -"= ' D"56' 4< ' 4595' 6<:' < &?5' -' ;5"B' 645"' :45' 4<B' 5" <">=5B' 459:5=7' 6& 4' :-?5' ?&:59S <J=5' A95< 895' =&D5' =;"^-"

<C<995' -"= ' A-8=B' :< H5 9<"A5' 79-?' 45' 8D5' -7' 8&:5!' <"B' 45' 8D5' -7' 8&:5' -"A5' ?<: 59' -7' 9<"A5!' 459' C" 5"B' 6<:' A59 <&" ' 45' 9&"A5' -7' -"B`' C<:' B5<B ' <C<995' 6<:' :8: <&"&">' J ' 4&?:5=7' 45' 64-=5' 65&>4 ' -7' 45' A-"7=&A " <"B' &"' 45' :;9&">!' 645"' :-?5' >95< 'xA9&:&:' HC<:' C&:&J= ' A-?&">!' &&5' :5" ' 45' ?-:' 98: 5B' -7' 4&:' ?&"&: 59:!' (' B5' =@ ;& <=!' -' -"B-"' -' 9 ' 45' 57=5A ' -7' ;59:-"<=' ;59:8<:&-" ' @ ">=<"B!@ B5' =@7= ;& <=' :<&B!' @ C<:' 45' 45<B' -7' 9- 5: <" ' 49&: 5"B-?' 45' &">' -7' @ <C<995' C<:' & :' 9&>" ' <9? @H 45' 59?<"' 9&"A5:!' -' k 64-? 45' 6<:'>-&">'<7 596<9B:!' ?<B5' =&I<J5 4@:' :8;;-9 ' <A-"B& &-"' -7' 789 459' 577-9 :' -"' 45&9' ;<9 ' 5' 5L;=<&"5B' -' 459' 4< !' 4&:' ?<: 59' A-8=B' "-' ;-::&J= ' J5<9' -"' 4&:' !' :4-8=B59:' 45' C5&>4 ' 64&A4' C<:' <J-8 ' -' J5' 49- ?' P;-"' 45? ' 7' :45' B&B' "-' 45=;' 4&?' 45' ?8: ' &5=B

:' 8:8<=!' :45' A-8=B' "-' 95:--=C5 ' 45' C-8=B' "-' A-"S :5" !' :45' C-8=B' "-' 9578:5 ' 45' =&&&&g595B' -C59' 459' <"$ C59' C45"' 45' ?&"8 5:' 6595' <:' B9-;:' -7' 45' =&75' J=--B' 8""&">' 79-?' 45' C5&":' -7' 45' &@- 5: <" ' A<8:5 ' 45' <&EB 4< ' <C<995' 4<B' "-' 9&>4 ' -' >&C5' 6< ' <7 59' 45' :8?:' C& 4' C4&A4' :45' 4<B' <=95<B ' ;&@-C&B5B' 4&?' 45' 45=B' -8 ' 4-;5:' 4< ' < ' :-?5' 78 895' &?5' :45' ?&>4 ' <><&"

K (' B5' =@ ;& <=' -' 89>4=5 !' ;9&=' !' (3

T ' # '

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J5 =&J59<= J8 <A 8<= 45=;! -9 B&: &"A ;9-?&:5 -7 &! 45 A-8=B "- 69&">79-?459

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Q 4<9& !@ 69-5 (B5 =@ ;&<= - 89>4=5 Q -89 @ ;9-C59J :< : J5>&": < 4-?5 -9! <: C5 :<! u 45 @ 7=5:4 &: A=-:59 4<" 45 :4&7 v H 5 45 %855" :< @ ;=<&"= 4< :45 A<""- 45=; 8: J5A<8:5 459 -6" 5L$ @ ;5":5: <95 --45<C ! <"B 65 :4<=J5 :< &:7&5B /##5 @ ?8: 45" B-64< 65 A<" 8 -5" 59 <&" 8: 6& 4 @ 9&BB=5:! -9578:5 ->&C5 8: 45 ?5<": -7 B575"B&">-89$ @ :5=C5:! <"B -7-9J&B 8: -;9-C&B5 7-9 -89:5=C5: &" :-?5 @ -459 6< !_ 4&: ? ?<: 59 6&= 4&"D < =& =5 4<9B K @ "5 -7 6- 4&">: 5 459 (<R5: 45=; 8:! -9 "- @ 7 "-! 45"! &" 45 "<?5 -7 A-??-" 98 4 <"B D&"B$ @ "5::! =5 459 :< :-;=<&"= ! 64&=5 65 A<" ?<D5 59?:! @ <"B <95 "- A-?;5==5B -:8995"B59 < B&:A95 &-"@H

7:45 A-8=B :;<95 "- ?-"5 ! B5 =@ ;&<= <:D5B 459 -:5"B :-?5 -"5 6& 4 4&?- 59?<" ! -95A-??5"B 4&: A<8:5 &" 459 "<?5 45 B5A=<95B! < 7&9: ! :45 6-8=B >&C5 4&?" 5& 459 45=; "-9 A-8" 5"<"A5 <"B 645" 45 --D 4&: =5<C5 45 4<B :A<9A5= 95A5&C5B < J5 59 <": 659 45 :<&B 4< :-?5 -"5 :4-8=B ;-::&J= 7-==-6 4&?&" - 59?<" ! <"B 5L;=<&" 459 6&:45:

45 <= 59"< &C5 A-"B& &-" < 64&A4 B5 =@ ;&<= 4&" 5B 6<: -JC&-8:= 45 &">-7 <C<995@:$A-"C59:&-"! C4&AJ :45 A-8=B "- 95A-??5"B! 5 -64&A4 :45 6<: "- 8&&E 6&==&"> 4< 45 :4-8=B J5 7-9A5B -> ?< &A 45-=-> :< <: =&>4 = -" <C<995 <: -" =&I<J5 4 -4&?! < -459! 45 C<9&5 &5: -7 49&: &<" -;&"&-" C595 -7 <: =& =5 ?-?5" <: 45 7<:4&-": -7 B95:: 45 -"5 <9 &A=5 -7 45 -?<" 7<& 4 C4&A4 45 J- 4 <J4-995B 6<: &" -=59<"A5 <"B ;59:5A8 &-"! <"B ?<::-9 A4<;5= ?<B5 =& =5$ B&&759E

E @ <A4<&9 5: ;=8:;9-A45 W85 =< "-: 95 95;-:;<9 W85=W85 <8 95 C- 5! A45?&:5@ R5 "5 :<! (-":&589! :& ?-" "&"&: 95

O@ (<&: B- =@5" 95 5"&9 <C5A =5: 9-8C59< A5=< 8";58 B895@ <?J<>5:! 5 <C5A =5:5:;`9<"A5:7-9 O 5=@ ;&<= - 89>4=5 ! ;9&= `=-&>"`5:"-8:-: 59 A5=8 B5 ;5":59 d * _ = 44 '(3

5"A5' 5' 6<:' 7955' 79- ?' 45' 9&C<=9 ' -7' -"BH!' <"B' 4<B' "-'=- ">59' -' B95<B' 4< ' <"- 459' -89J-"!'&7' 45' A-"7-9?5B!' ?&>4 ' : 5<=' 79- ?' 4&?' 45' <==5>&<"A5' -7' 45' =&8>85"- :' 5' 4<B' J8 ' -' &5=B' -' 45' ;95::895!' -' 64&A4' < ' =<: ' 45' &"' 7<A ' ><C5' 6< !' -' 4<C5' 45' &">' <"B' 4955$W8<9 59:' -7' 9<"A5' < ' 4&:' J<AD!' <"B' -' J5' <J=5' -' B57 ' 7-9' 5C59' 45' 6-9: ' &"<=&A5' -7' 45' 5<>85 H

-' B5:&95' 4&:' A-":8??<&-"' 6<:' <:' "< 89<=' <:' -' B5:&95' <' 95< ' 6& 4' ;<&"!' &"' 64&A4' 45' 95=&>&-8:' =&J59S &5:' -7' 45' 5 45&=<"B:' 6595' -' J5' :<A9&7&A5B ' =&I<S J5 4' ;59=&<;:' 98: 5B' --_ <"B' 459' 98: ' &"' 4&:' &": <"A5' C<:' A89&-8:= ' 65==$7-8"B5B_ -' 45' A-": <" ' 79&5"BS :4&;' 64&A4' :45' 4<B' 7-8"B' &"' 5"9 ' -7' #<=-&: ' 65<D!' A- C<9B= !' <"B' 95<A459-8:'<:' 45' 6<:!' &5=B&">' <=6< :' -' 45' : 95<?!' <:' 45' 4<B' &5=B5B' &"' 45' 599&J=5' B< :' -7' ' <9 4-=-?56!' 45' &">' -7' 9<"A5' 6<:' 5 ' 985!' <:' <' k H4-=5!' -' 45' 9<B& &-"<=' ;-=&A ' -7' 4&:' 4-8:5 ' 4-8>4' J5' 6<:' --' 755J=5' -' 5"A-8" 59' 45' 5<>85' &"' 45' 7&5=B!' J&:' 75<9' <"B' 4< 95B' -7' 45' 8&:5:' ?<B5' 4&?' & :' B5<B45: ' ;;-"5" !' <"B' 45' ?-: ' B&::-=8 5!' :8;59: & &-8:' ;9&"A5' &"' <==' 89-;5' 4<B' A4-:5"' 45' =< & 8B&"<9&<"' =&I<J5 4' H:' 45' ;5A8=&<9' -JR5A ' -7' 4&:' 95><9B

&"B&">' 45' &">' -7' <C<995' 8"<J=5' -' <D5' 45' 45=B!' 45' --' 75=' 4< ' <' A9&:&:' -7' :-?5' D&"B' 6<:' A-?&">' 4&=&;' 4<B' :5" ' 8&:5' 4955' 48"B95B' 4-8:<"B' A9- C":!' #& 4' <"' &" &?< &-"' 4< ' 45' 9?<B<' 6<:' <J-8 ' -' :<&=!' <"B' 4< ' 45' "58 9<=& ' &7' "-' 45' <A &C5' <::&: <"A5' -7' 9<"A5' ?8: ' J5' :5A895B' < ' <==' 4<I<9B: ' 45' A=-8B' 64&A4' J<B' J55"' 9<&:5B' J ' 45' :8AA5::&-"' W85: &-"' 6<:' : &==' 8"S B&:;5==5B"' J8 ' 8&:5' 6<:!' 7-9' 45' ;95:5" !' 45' -"= ' 95"A4?<"' -"' 64-?' 4&=&;' A-8=B' B5;5"B!' <"B' :-' 7<9!' < ' =5<: !' <:' 45' 5: <J=&:4?5" ' -7' 45' 5<>85' <"B' 45' -C59S 49-6' -7' =&I<J5 4!' 45&9' 9-<B:'=< ' &"' 45' :<?5' B&95A &-"

K <77-9B' -' =&I<J5 4!' ;9&=' M$*M _ =44 ' '(3

' ' .

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- ;95C5" 45 ;<"&<9B: 79- ? 4<C&"> 45 8:5 - 45 4<9J-89: &" 45 4<""5=! 45 &">! 64&=5 45 4<B &?5! :5A895B -8=->"5 <"B <=<&: 5 95&"7-9A5B 45 ><99&S :-":! ;8 &" >-C59"-9: -" 64-:5 A-": <"A 45 A-8=B 95= ! <"B A4<9>5B 45? - 4-=B J- 4 ;=<A5: <><&": <= A-?59: 45 8D5 - 8?<=5! 8&:5@: J9- 459! 65" B-6" - 45 A-<: ! <"B :8??-"5B -8=->"5 - :89S 95"B59 0 5 6<: -- =< 5! 4-65C59! <"B 6<: -J=&>5B - =< :&5>5 - & &" 7-9?! 6& 4 45 ;9-:;5A - J5&"> B5S <&"5B 4595 7-9 45 :8??59 8&:5 4&?:5= ;95;<95B - :5A895 & ;-::&J=5 45 ;59:-" - =&5"9 5 :5" <?5::<>5 49-8>4 5=&5C95 B5?<"B&"> 45 A-" 9-= - 45 >-C59"?5" ! <"B 7-==-65B & 8; J <BC<"A&"> -4 <9&: 45 A& ! 64&A4 6<: <=6< : B5C-5B - 4&?! 4<B -9S ><"&:5B & :5= &" - ?&=& <9 B&: 9&A :! <"B 4<B <=95<B ;=<A5B & :5= 8"B59 4&: A-??<"B 5 <;;5<95B < 45 >< 5: -" 45 = 4 - (< x ;9&= 5=$(< = <"B 6<: 95A5&C5B 6& 4 45 6&=B5: 5" 48:&<:?! 6-?5" :4-659S &"> 7=-659: 8;-" 4&? <: 45 9-B5 49-8>4 45 : &55 :! ?5" A=&">&"> - 4&: : &998; -" 45&9 D"55:! <"B <B-9&"> 4&? <: < :<&" 6- B< : - A-"C8=:&-" 7-==-65B! <"B 8&:5! < 45 5"B - 45?! &" <== ;-&" : J8 -"5 6<: :-C595&>" - 9<"A5 " <9&: 4595 6<: 45 8"&C59:<= :4-8 ! #&C5 8&:5" C&C5 =5 =&J`9< 589 B5 9<"A5'@ J8 45 &"> 4&?:5= 4<B :=&;5B 49-8>4 4&: 4<"B: " 45 5C5"&"> - 45 B< - 45 J<99&A<B5:! 645" <== 6<: =-:! 5"9 4<B :;98"> -" 4&: 4-9:5 6& 4-8 J-- - : ;89! ><==-;5B -=/-C59 45 J9&B>5 - =-8B! <"B 6< <6< - 4<9 95: <B 8&:5 <D5" 4&?! < 95"A4 7=55 6-8=B! &" <== =&D5=&4--B! 4<C5 R-&"5B (5B&"< &B-"&< &" 45 ">=&:4 4<""5= - :4<95 45 4-"-89: - 45 &"C<:&-"! <"B - B&:;8 5 <7 596<9B: 4&=&;@: A=<&? - 45 49-"5 8 45 6<: >-"5 -8 - 95<A4! <"B &" < 75CH B< : 6<: :8& -8"B5B J < ;-65978= J-B - =- <= "-J=5$

?5"' <"B' >5" =5?5" ' 8&:5 ' 64-' <: ;&95B' 4&?:5=7' -' J5' #
&">' -7' 9<"A5!' B&B' "-' B<95' -' 5L<: ;5&@< 5' 45' ?-B59< 5'
< 4-=&A:' J ' 7-==-6&">' 4&?' &"' <9?:!' <"B' 6-' ;95A&-8:' *M33
8=
?-" 4:' 6595'=-: '&"' A-995: ;-"B5"A5' <"B' B&;=-?<A ' 45'
8D5' 4<B' 4&:' 6< ' <' =<: !' -9' :55?5B' -' 4<C5'& ' ';5<A5'
/ <:' :&>"5B' -"' 45' c' 4' -7' 8= !' J ' 64&A4' 8&:5' 6<:'
?<B5' &58 5"<" $ -C59"-9'-7' 45' 95<=?!' 45' =5<>85' 6& 4'
">=<"B' B5A=<95B' J9-D5"!' <"B' -8=->"5' -9B595B' -' J5'
8995"B595B' -' B@ 8?<=5' 8 '&' A<?5' --' =< 5'7-9' 45'
É &??5B&< 5' ;89;-:5$ 45' 9?<B<' 6<:' <=95<B ' <' 45'
?-8 4' -7' 45' 4<""5=!' <"B' & :' 7< 5' <J-8 ' -' J5' B5 59S
?&"5B' 7-9' >--B' -9' 5C&=' J57-95' 45' 5<>85' A-8=B' :4<95'& :'
>=-9 ' -9' & :' :4<?5' 45' &">!' C4-' -$<; ;5<9<"A5' 4<B'
&5=B5B' 5C59 4&">!' 6<:' <"&?< 5B' -"= ' 6& 4' <' ?-95'
B5<B= ' B5 59?&"< &-"' -' 95C5">5' 4&:' B&:>9<A5' 5' -=B'
<77-9B' 4<' "- 4&">' : &=' :4-8=B' J5' < 5?; 5B' <><&": '
">=<"B' "B 4-8 ' "- &A5!' <"B' 4<' 4-65C59' 45=;=5::' 45'
?&>4 ' :55&;!' @J57-95'=-">' 4595' 6-8=B' J5' <' >95<' ' A4<">5'
J&:' 7<&9' A-8" 5"<"A5' -6<9B:' 8&:5' A-"A5<=5B' @<' ?<9$'
@C5==-8:' B5:&>"' 5"B&">' -' <' ?-: ' >95<' ' 5" 59;9&:5!@ <"B'
&7' @ 45' ;<"&:4' 7=55 ' A-8=B' -"= ' J5' B575< 5B' <=' >--B'
@ 4&">:' 6-8=B' 7-==-6 @@

45' @>95<' ' 5" 59;9&:5'@ 6<:' 45' 7<?-8:' 9<>5B ' -7'
=-&:!' 64&A4' 7-==-65B' &"' 45' 5":8&">' 6&" 59' -9' 45'
;95:5" !' 9<"A5' 95?<&"5B' <' ;<::&C5' : ;5A < -9' -7' 5C5" :'
-"' 64&A4' 45' 7< 5' -7' 89-;5' B5;5"B5B' 4&=&;@:' <?J&S
&-"' 4<B' <=&5"< 5B' A- =<"B" =&I<J5 4' 4<B' ;<9<= :5B'
45' P"& 5B' 9-C&"A5:' <"B' 48:!' 79-?' <' A-?J&"< &-"' -7'
A<8:5:!' ">=<"B' <"B' ;<&"' 6595'=57 ' 7<A5' -' 7<A5' -' 7&>4 '
-8 ' 45&9' >95<' ' B85=' :&">=5$4<"B5B

<7=7-9B' -' <=:&">4<?!' 8= ' V&' <"B' 8>' & _ =44 ' '(3

' #

' 5:8& :' 4<B' A<99&5B' 45' B< !' <"B' ;<&"' 4<B'
?<B5' 8;' & :' ?&"B' <' =<:' -' 5"7-9A5' 45' 8=-' -7'
L11 -;5' &8:' 'A-?J&"<&-"' -7' A89&-8:' A&9A8?:<"A5:!'
<::&: 5B' J' 7-89' <"B' 65" ' ?&=5:' -7' 6<59!' 4<B' ;9-S
5A 5B' ">=<"B' 4& 459 -' 7L@-?' :4<9&">' 45' ?&:59&5:' -7' 45'
95:' -7' 89-;5' J8' 45' 5L5?;&-"' &"' &:5=7!' ;9-C-D&">'
-' 45' "< 89<=' 5"C' -7' 45' =5::' 7-9 8"< 5!' A-8=B' "-' =<:'
7-9' 5C59' -' <' 5<9' 4<B' ;<::5B' 6& 4-8' <' 6<9"&">' -7'
<"' &" 5"B5B' &"C<:&-"!' <"B' 45' "-&A5' -' ;95;<95' 4<B' "-'
J55"' 49-6"' <6<

4&9' 5<9:' -7' ;5<A5' 6595' :8;;-:5B' <J9-<B' -' 4<C5'
5?<:A8=< 5B' 45' -"A5' 6<9=&D5' ">=&:4' "<&-"!' <"B' -' 4<C5'
:-' 5"<?-895B' 45' ;5-;=5' -7' W8&5!' 4<' 45' 4<B' "-'
=-">59' 5"59>' -' B575"B' 45&9' -6"' 7&95:&B5:' 7' 45&9'
C&>-89' 6<:' 8"&?;<&95B' &' 6<:' 45=B' A59 <&"=' 4<' 45'
?8:' 6<"' :D&=-' <"B' 5L;59&5"A5' 45&9' ;5A8=&<9' 65<;-"!'
45' =-">' J-6!' 4-8>4' &' 4<B' "-' 5' J5A-?5' <' -' 7-7'
45' ;=< >9-8"B!' A-8=B' "-' =-">59' B5A&B5' <' J< =5' &"'
45' 7<A5' -7' ?8:D5:' <"B' A<""-"' <"B' <9B5"' < 4-=&A'
89-;5' 5L;5A 5B' A-"7&B5" =' 4<' &"' A-=&:&-"' 6& 4' 45'
9<&"5B' 95>&?5" :' -7' ;<&"' -9' 9<"A5!' 45' ">=&:4'
?&=& &<' 6-8=B' J95<D' &"' ;&5A5:' <' 45' 7&9:' 5"A-8" 59' "'
45' :5<' 45' 6595' <AD"-6=5B>5B' -' J5' :&=-' B<">59-8:'
45' ">=&:4' A-9:<&9' 6<:' <' "<?5' -7' 59&@-9' 64595C5&K'
4595' 6595' <4-=&A' 9<B59:' -' J5' ;&=<>5B' ">4:J

?5&@A=&<" "&5"' &"' 45' (5B& 599<"5<"' B57&5B!' 5"><>5B!' <"B'
B575< 5B' 45' 9- <=' ><==5 :' -7' ;<&"!' 4-8>4' -8 ?< A45B'
-' 6&A5' 45&9' : 95"> 4 H' 45' >5"59<=' &? ;95::&-"!' 4-6S
5C59!' 6<:' 4<' &7' 45' "<C<=' B575"A5:' A-8=B' J5' ;&59A5B!'
<"B' <' 65=='7-8"B' <9? ' J5' 49-6"' -"' :4-95' &"' <" ' ;<9'
-7' 45' D&">B-?!' 45' ;-659' -7' ">=<"B' 6-8=B' A-==<;:5' &"'
98&":' -"B-"' & :5=7' 6<:' 8"B575"B5B' <"B' 4595' 6<:'
"-' <' 7-9 95::' &"' 45' 64-=5' &:=<"B' 64&A4' 6-8=B' B5=<'
<"' <9? '7-9' <"' 4-89

' 4<:' J55"':55"' 4<' 45' 9&"A5' -7' <9?<D"56' J5 59'
64<' 45' A-8" 9' 6<:' ?<B5' -7' =4-8>4' 45' 48"B95B'
J557$5< 59:' <' -89' A-":&8 5B' 45' -"=' ;59?<"5" =' '
5L&:&">' 7-9A5' &"' 45' :59C&A5!' -7' 45' -C59"?5"!' 5'
">=&:4' <"B' ;<"&:4' :-=B&59:' 4<B' 5"A-8" 595B' &"' ?<" '
<4<9B' 7&>4' -"' 45' " 659;' B D5:' -9' &"' 45' -;5"' 7&5=B!'
<"B' ?<"' -' ?<"' 45' ;<"&<9B:' A-8=B' A=<&?' "-' :8;59&S
-9& ' 5' 4<B' 5L;59&5"A5B' <' =8 :' 4<' 45&9' 5">&"559S
&">' :D&=' 6<:' "-' A-" 5?;&J=5' &5' D"56!' ;594<;:!' -'
P:5' 45' =<">8<>5' -7' <' 69& 59!' 64-' <7 59' 4&:' -6"' ;5-;=5'
5:;5A 5B' 45' ;<"&<9B:' <J-C5' <==' -459' "<&-":' &"' 45'
P9-9=B!' 4<' ' 45' ">=&:4' 4<B' <=6<:' J55"!' <"B' <' 4<'
' ;95:5" ' 6595!' <' 7955' ;5-;=5!' :8A4' <:' &"' 756' -9' "-' -459'
K95<=?:' 6595' -' J5' 7-8"B' 45' =&D5!' J' 64&A4' 7955B-?'
6<:' ?<&" <&"5B' <' C<=&<" ' A-89<>5' &"' 4<' ;5-;=5 @H
=<"B59:!' 9<"A5!' <"B' 5=<"B' 4<B' J55"' 9<&"&">' :A4--=:'
(&595' ?<" ' 4-8:<"B:' -7' ">=&:4?5"' -7' <==' 9<"D:' 4<B'
=5<9" ' 45' <9 ' <:' 65=='<:' 45' ;9<A &A5' -7' 6<C!' 64&=5' 7-9' 45'
=<:' 5&>4 ' 5<9:' 45' ?&=& &<' 4<B' J55"' A<9578== ' 9<&"5B' &"'
45' 8:5' -7' 45' ?-B59"' 65<;-":' #-=8" 559' ?&=& <9

K 48:' &"' &:i2'7&C5' -"B-"' C5::5=:' <"B' 45' ;<"&:4' <B?&9<=' 6<:' -J=&>5B'
&@-89"&">' 79-?' -":<" &"-;=5' 5"S -' :4559' -77 _ C 2&!4 ' C-=' &&' ;'
><>5B' -"' 5B9-' B<' 5 C<' 6&4' 1.' I
5=5C5"' <9?5B' ><==5 :' J5 655"' &A&=' @' 59 <&"' 4&">:' -' J5' A-":&B595B'
O"B (<=<' 45' <A&-"' =<:5B' 7&C5' 7-9' 45' :;5A&=' 65<=4' -7' ">=<"B _'
4-89:" -"5' -7' 45' ><==5 :' 6<:' :8"D! =44'5*. $!3' 5A' *M3M

:A4--=:4<B J55" 5: <J=&:45B <== -C59 45 A-8" 9 ! >5"S
#
=5?5" 64-4<B :59C5B <J9-<B B9&==&">45 :-":-7 45
*M33
D"&>4 :<"B :W8&95: 4955 48"B95B -"B-"?59A4<" :
64-4<B :55" :59C&A5 --D A4<9>5 -7 45 & A-9;:!H
<"B 45 5L<?;=5 &:=&D5= 6<: &?& < 5B &" 45 - 459
-6":64&=5 <=-">45 A-<: 45 ;9&C< 559&">9<B5 4<B
?<B5 =5::-":&"7&>4 &">< ;<9 -7 45 5B8A< &-" -7 5C59
4&>4$:;&9& 5B =<B

" 4&:6< 7-9 5&>4 5<9: <== ">=<"B 4<B J55" $&"
;95;<9< &-"7-9 45 B< -7 9&<= 4<B "- J55" 6& 4S
-8 B<">59! 7-9 45 >5"59<= ?&=& <9 -9><"&:< &-" 4<B
J55" ?<B5 < :4&5=B J54&"B 64&A4 45 < 4-=&A 7<?&=&5:
4<B J55" &"C& 5B -?<D5 95<B 7-9 95J5==&-" 8 45
95A8:<" : 6595 D"-6" <"B ?<9D5B 4-8>4 5C59 <J=5$
J-B&5B ?<" 6<: ;8 !&" 9<&"&">! 45 A8: -B -7 45
<9?:6<: 95:59C5B 7-9 4-:5 64-A-8=B J5 98: 5B 64&=5
45 9- 5: <" : 4<B 45 5::5" &<= <BC<" <>5 4< -"=
45 A-8=B 78& &&:4 5LR&59&5"A5B :-=B&59: 45 < 4-=&A
">=&:4 64- ?<B5 6<9 45&9 ;9-75::&-" 6595! :59C&">
<J9-<B &" 45 <9?&5: -7 <9?< -9 8&:5

48:& 6<:! 4< 645" 45 =-"> <=D5B -7 ;59&= 6<:
< 45 B--9:! <"B 45 ;5-;=5 6595 A<==5B -" - <D5 45&9
4<9"5:: - 95:&: &"C<:&-"! <48"B95B 4-8:<"B ?5"! 65==
-77&A595B <"B <;;-&" 5B! 6595 95<B < < B< @:"-&A5 -
7<==&" - 45&9 A-?;<"&5:! <"B ?-C5 64595C59 45 6595
6<" 5B " 45 8"A59 <&" 645&K5 45 ;<"&<9B:6-8=B
=<"B 45 6595 =57 < 45?4-?5:! J8 6& 4 45&9 =&"5
-7 <A &-" <AA89< 5= =<&B B-6" 45 ?8: 59:- 7 45
?&B=<"B A-8" &5:! 4&9 4-8:<"B : 9-">! 6595 - 7-9?
<:5;<9< 5 <9? 7-9 45 B575"A5 -7 45 %855"@:;59:-"!
<"B 6595 B&95A 5B -<::5?J=5 -" 45 7&9: "- 5 -7 <=<9?
J5 655" &"B:-9<"B =<99-6 45 95: 6595 -><459
- 45 ;-&" -7 B<">59 45 A-<: A-?;<"&5: 4<B -9B59:

-' 7<=-' J<AD!' 64595C59' 45' 5"5? ' =<"B5B!' 95?-C&">' 45' #
A-9"' <"B' A< =5!' <"B' <C-&B&">' <' J< =5' &=-' 45' 7-9A5' -7'
45' "5&>4J-89&">' A-8" &5:' R-&"5B' 45?' 4-8=B' 45' H
=<"B&">' J5!' <:' 6<:' 5L;5A 5B!'&"' 877-=D!' 5" !'-9' 8::5L!'
&' 6<:' A<=A8=< 5B' 4<' J5 655"' 4&9 ' <"B' 7-9 ' 4-8:<"B'
?5"' A-8=B' J5' 49-6"' &"' 45&9' 6<' J57-95' 45 ' A-8=B'
95<A4' -"B-"!' 64&=5' 65" ' 4-8:<"B' 6-8=B': &=-' 95?<&"'
-' 54A-8" 59' 8&:5!' :4-8=B' 45' < 5?;' <' B&C59:&-"' &"'
<?;:4&95'-9' -9:5 :4&95 H

-6' 7<9' 7-9A5:' 48:' A-": & 8 5B' A-8=B' 4<C5' 45=B' 45&9'
>9-8"B' <><&": ' 45' C5 59<"' :-=B&59:' 64-?' 45 ' 6-8=B'
4<C5' 5"A-8" 595B!'&:' <W85: &-"' -"' 64&A4' 45' 9&"A5' -7'
<9?<@:' ?-B5: ' -;&"&-"' &:' 5" & =5B' -' 95:;5A ' "' :< S
&">' 4<' 45' C-8=B' 4<C5' -' 7&>4' J< =5' <7 59' J< =5!'& ' &:'
-' J5' ;@@5:8?5B' 4<' 45' 5L;5A 5B' -' 6&"' 45' 7&9:' <"B'
;594<;:' 45' :5A-"B' 5' 5L;5A 5B' <=:-' 4<' 4&:' C&A -9&5:!'
=&D5' 4-:5' -7' 9948:!' 6-8=B' J5' B5<9= ' ;89A4<:5B!' <"B'
/ <:' C59 ' 7<9' 79-?' A-"7&B5" ' -7' 45' 8= &?< 5' 95:8= ' '
/ -8=B' 89"!'&"' 48?<"' ;9-J<J&=& !'-"' 45' <A &-"' -7' 45'
< 4-=&A:!' <J-8' 64&A4' 4595' 6<:' : &=-' <"' 8"5<: ' 8"A59S
<&" ' 4&=&;@:' A=<&?:' -"' 45' :8AA5::&-"' 4<B' <=&5"< 5B'
4-:5' 64-' 6595' < 4-=&A:' 9< 459' J ' B5:A5" ' 4<"' 7<"< &S
A&:?"' J8' 4595' 6<:' : &=-' <' ;<9 ' -7' 8"D"-?&' : 95"> 4'
P"B59' 45' &"7=85"A5' -7' 45' 5:8& :!' -7' 64&A4' 45' <9=' -7'
98"B5=' 6<:' 45' ;-=& &A<=' =5<B59!' 64-' 4<B' 7-9>- 5"'
45&9' A-8" 9 ' &"' 45&9' A955B

< 459' <9J :4&95!' <"' ">=&:4' 5:8&' < ' <9&:!' -=B'
<"' <>5" ' -7' <=:&">4<?@:!' @ 6&:4&">' -' ><&"' 4&?' -' 45'
@ A<8:5!@ 4<' @ 4595' 6<:' <' J<"B' -7' ?5"' &"' -"B-"!' 6& 4'
@ <"' -77&A59' :6-9"' -' 45' &">' -7' ;<&"!' 64-' 4<B' :59C5B'
K8"B59' <9?<!@ 64-!' 645"' 45' 9?<B<' 6<:' &"' 45'
4<""5=!' <"B' @ <=-' 45'7-9A5:' 6595' B9<6"' -' 45' A-<:' -

E' E' -5:'-7' ;=<A5:'=&D5=' -' R5' <:S .)!3' *M33' -?;<95' 45' (8:59'
:<&=5B @ @ -5:'-7' 457-9A5:' -'95;<&9' =&: :!' ;9&" 5B'&"' !(9 /' ;;' $'
8'-7'5<A4' A-8" j' \A _ =44'5* < C

*M33

Ø 95:&: & "C<:&-"!@ &" 5"B5B -9&:5! :5 7&95 -45 A& ! 7-9A5 45 -659!<"B &'5=5<:5 -9B 98"B5=45 <4-S =&A :<"B<9B 6<: 45"j -J5 9<&:5B!<"B 45 7<& 478= 5C59 64595 6-8=B <D5 <9?:<"B R-&" 45 ;<"&<9B: H C5" &7 4595 6<: "->5"59<= 95J5==&-"! 4595 6<: < 75<9 4< <BC<" <>5 ?&>4 J5 <D5" -7 45 <J:5"A5 <7 45 =- <= ;<9 -7 45 ;-R 8=< &-" 79-?: 45&9 4-?5: -? <D5 =-A<= B&: 89J<"A5:! 64&A4 6-8=B 95A<== 45?: 79-?: 45 <9? ! -9 95"B59 45?: 8"6&==&">-R-&" 45&9 :<"S B<9B:! 7-9 75<9 -7 64< ?&>4 4<;;5" &" 45&9 <J:5"A5 <"B -9B59: 4<B J55" >&C5" J 45 -8"A&= -8:5 45 ><==-6:7955= -" 45 :=&>4 5: :&>" -7 < B&:;-:& &-" -A95< 5 9-8J=5 H

6<:"-J =<"B! 4-65C59! 5& 459 4< 45 ;<"&<9B: ?-: 75<95B 45 ">=&:4! -9 4< ">=&:4 :<5:?5" <"B -77&A59: ?-: 95=&5B -" 45 ;-659: -7 45 A-8" 9 -B575"B & :5=7! &7 & 6<: -"= <==-65B 7<&9 ;=< " ">=&:4?<" 69& &">79-?: &:J-" &" 45 45< -7 45 ;95S ;<9< &-": 7-9 45 9?<B<! 95;-&@ 5B! Ø 4< 45 4<B <=D5B Ø -?<" -7 45 ;5-;=5 4595 45 A-"75::5B 45 Ø 75<95B ">=<"B -" 45 6< 59! J8 "- -" 45 =<"B Ø 45 ">=&:4! 45 :<&B! 6595 J5 59 6<99&-9: 4<" 45 Ø -" 45 :5<: 45&9 ?<9&"59:<"B >8""59: 6595 J5 59! Ø <"B 45 75<95B 45&9 7&956-9D: @K 45&9 5L;59&5"A5 -7 9<D5<"B <6D&":<"B 45&9 A-?;<"&-":4<B ?<B5

K (5"B-9:5B G (9 <= -"<"B (9 ==:! ;9&= *M33 @_ =44 5*I . $!3

K Ø &:' -J5 A-":&B595B 4< 45 &">-7 ;<&"&:"-<= ->5 459 4-;5S =5::' -7 :-?5 ;<9 -7 <;&: :<"B ?<=A-"5" :' 7 45 95>&?5" :' J5 "-'&" 95<B&"5::! & 6&=' J5 --= <5 -' <::5?J=5 45?:7-9 95:&:<"A5 -7 <" 7-95&>" 5"5? ! <"B -' 6& 4S :<"B 45?:<' 4-?5 J-4 &" -"5 B< " 7-9 5C59 ' ?<" 6&== :<"B &" 75<9 -7 45 7&9&">' -7 4&:K-6" 4-8:5 <"B 4a B5: 98A &-" -7 4&:' 7<?&= $ 45957-?' &7 <" ' : &9 :4-8=B 4<;;5" &" 4&:' A<:5! :-?5 :5C595 ;9-A55B&">' 6-8=B J5 :;55B&= 8:5B J ' *'&#)',' =<6 @_ R8'3 8!N 82 $*: ' ' '!8)D =44 :!) ;9&= *M33

Ó 5;-9 79-?: &:J-" <?53 54<==! ;9&= *M33 _ =44 :!)

45?' ?-B5: = ' A-":A&-8:' -7' 45&9' -6"' &"759&-9& '$64595' #
"8?J59:' 6595' &"' <" ' 6< ' 5W8<=

8 ' <' 7=55 ' 6<:' "-' =&D5' 45' ?7=& &<!' <' 4&">' 64&A4' 45' *M33
A-8" 9 ' A-8=B' 5L 5?;-9&:5' -8 ' -7' & :' -6"' 95:-89A5:'
45' :5<' -6":' <"B' ;9&C< 5' <BC5" 8959:' A-8=B' 7& ' -8 '
?59A4<" ?5"' -' 7&>4 ' 57&5A &C5= ' <><&":' <"' 5"5? ' -7'
45&9' -6"' :&I5' <"B' : 95"> 4"' J8 ' 45' =<9>5: ' :4&;' &"'
">=<"B!' < ' 4&:' &?5' J5=-">&">' -' <' ;9&C< 5' -6"59' B&B'
"-' 5LA55B' 7-89' 48"B95B' -":!' <"B' -7$C5::5=:' -7' 4< '
:&I5' 4595' 6595' "-' ?-95' 4<"' 6-' -9' 4955' :<&=&">' 79-?'
<" ' ;-9 ' &"' 45' A-8" 9 ' 45' <9?5B' A98&:59:' 64&A4'
4<B' 6-"' :-' B&: &">8&:45B' <' "<?5' &"' J- 4' 45?&:;4595:!'
595' -7' 45' B&?5":&-":' -7' 45' ;95:5" ' :A4--"59' <A4 :'
&"' 45' -65:' :W8<B9-" ' 4&=&;!' <:' <' ;< 59"<=>-C59"-9!'
4<B' 5"A-89<>5B' :4&;J8&=B&">' &"' ;<&"' J ' >9<" :' 79-?' 45'
9-6" ' -9' 5C59 ' C5::5=' 64&A4' 6<:' A-": 98A 5B' <J-C5'
4955' 48"B95B' -":' J89B5"' 45' <==-65B' 7-89' B8A< :' <'
-" ' 7-9' 5C5L ' C5::5=' <J-C5' 7&C5' 48"B&E5B' 45' <==-65B' :&L'
B8A< :' <' -" ' 4<=7' -7' 4&:' >9<" ' J5&">' <' J-"8:' 79-?' 45'
9-6"!' 4<=7' <' =-<"' -' J5' 95;<&B' < ' =5&:895 ' =&I<J5 4'
4<B' J55"' <BC&:5B' -' &?& < 5' 45' 5L<?;=5 H' 8 ' :45'
4<B' ;9575995B' -' =5<C5' 459' :8JR5A :' -' 45&9' -6"' 5" 59S
;9&:5!' "-9' 4<B' :45' A<95B' 459:5=7' -' =5<B' 45' 6< ' -7'
&?;&@-C5?5" ' 45"' 459' "<C<=' 95:-89A5:' 6595' <=='
A-8" 5B!' &"A=8B&">' C5::5=:' 64&A4' 4<B' J55"' J8&=' J ' 459'
7< 459' <"B' :&: 59!' 45' 5" &&E5' ">=&:4' "<C ' A-" <&"5B'
J8 ' 4&9 55"' :4&;:' <J-C5' 7-89' 48"B95B' -":!' <"B' &"'
45' 64-=5' 7=55 !' &"A=8B&">' 7&7 55"' :?<==' A8 59:!' <"B'
;&""<A5:!' 4595' 6595' -"= ' 4&9 $5&>4 ' C5::5=:' -7' <=='
-&E:' <"B' :&I5:' A<99 &">' 45' %855"E@:' 7=<>' 45' 4<B' 5LS
5"B5B' -' 45' B-AD <9B:' 45' :<?5' 4<9B' 49&7 ' 6& 4' 64&A4'
:45' 4<B' ;<95B' B-6"' 459' 5L;5":5:' 5C59 64595' "5

K 59 <&"' 4&">:' -' J5' A-":&B595B' 7-9' 45' :;5A&<=' k 65<=4 -7' "f =<"B _ '
144 ' 5*. $!3 ' *M3M

*M33

;95A<8 &-"- "= :45 4<B <D5"- "45 - 459 :&B5! A4<9<AS
59&: &A <=:- -7 459:5=7 45 4<B ;=<A5B < 45 45<B -7
459 "<C<= <B?&"&: 9< &-" 45 7& 5: ;59:-"&" 459 B-?&S
"&-":- -?<"<>5& _ &9 -4" <6D&":_ H64-! :5< 9-JJ59!
A-9:<&9! :=<C5 48" 59! <: 45 6<:! 5 C&4 :A98;8=-8:
7&B5=& 4956 4&: ?&"B <"B 4&: 7-9 8"5 &" - 4&: A4<9>5
45" 45 ?-?5" -7 9&<= A<?5! =<6D&":5" 459 :4&;:
-:5<&": 8A4 A-"B& &-"! 48==! 9&>>&">! :;<9:! <"B 98""&">
9-;5! 4< 45 4<B "- ?< A4 &" 45 6-9=B 5& 459 7-9
:;55B! :<75 ! -9 5"B89<"A5 " 45 :?<== 6<==-6
64&A4 4<B J55" J8&= J &">5"9 ! -9B - C<9B
-77595B -:<&= - &- <"5&9-! &" 45 C&=B5: : -9?4<
A-8=B J=-6

7A C 6-9B:&" B5 <&= ?< J5 :;<95B - 45 A-": & 8S
&-" -7 45 7=55 C4&A4 6<: <J-8 - <AA-?;=&:4 :-
:;=5"B&B < :59C&A5 " -9B&"<9 &?5:! -"5 -9 6-
:5A-"B A=<::C5::5=: <=-"5 6595 D5; &" A-??&::&-"!
C4&A4 B&:A4<9>5B 45 B8 &5:C59 &?;5975A = -7 4<""5=
;-=&A5 45 "<C B&B "-5L&: <: < ;9-75::&-" 6<:
45 %855"@: ;-=&A -< ;5<9 <: =& =5 <: ;-::&J=5&" <"
C-9D 4< 4<B -J5 B-"5! <"B -=5<C5& -$;9&C< 559:
45" -77&A59: 6595 6<" 5B! 45 6595 A4-:5" 79-?
4-:5 64-! =&D5 &9 9<"A&: 9<D5! 4<B B&: &">8&:45B
45?:5=C5: <: <BC5" 8959: 45 A956: 6595 5"><>5B
J 45 C55D! J 45 ?-" 4! -9 7-9 :-?5 :;5A&<= :59C&A5K
A-??&::&-" 6<: <;;-&" 5B &" c ? A-":&: &7&> -7
89>4=5 ! <=:&">4<?! - C<9B! 9<D5! <"B 9-J&:459V
-5L<?&"5 &" - 45 A-"B& &-" -7 :4&;: <"B : -95:! <"B
:- -9><"&:5 45 <9B:< -9 :?-8 4 <"B 4< 4<?V
4< < :W8<B9-" A-8=B J5 45=B 95<B 7-9 :5<&7 :8BB5"=
A<==5B 7-9 45 64-=5 "<C C<: 45" 4-9-8>4= -C59S
4<8=5B <"B 95;<&95B 45 A4<9>5:7-9& : 78 895 ?<&"S
5"<"A5 6595 B&C&B5B &" - -9B&"<9 <"B 5L 9<-9B&"<9 K
45 7&9: A-C595B 95;<&9: -7 <== D&"B:! 6<>5: -7 :4&;E

k C"H>4:! A<9;5" 59:!' A=59D:!' 6< A4?5"!' <"B' A-:' -7' &?S =7
J59:!' 9-;5:!' <"A4-9:!' ?--9&">' A<J=5:!' <"B' - 459' "5A5::<9 '
B-AD <9B' 5L;5":5:' -9' <=' 4&:' 45' %855"' <=-65B' 7-89' *M33
4-8:<"B' ;-8"B:' <' 5<9' 45' 4-8>4' 45' :8?' 5LA5:S
:&C5!' J8' &' A-8=B' "-' J5' J9-8>4' =-659' 45' :5A-"B!' -9'
5L 9<-9B&"<9' A4<9>5:!' A-C595B' :;5A&<=' 5L;5B& &-":!' 7-9'
64&A4' &"' 5C59' &": <"A5' <' ;<9 &A8=<9' 5: &?< 5' 6<:' ?<B5'
J' 45' -8"A&=!' 6& 4' 45' =&>4 59' A-9B<>5!' A<"C<:!' ;9-C&S
:&-"H!' <"B' - 459' ;59&:4<J=5' : -95:' -7' 64&A4' 45' A-":8?;S
&-"' C<9&5B' 6& 4' 45' "< 895' <"B' 5L 5" ' -7' 45' :59C&A5'
' &"A=8B5B' <=:-' 45' J8&=B&">' -7' 64<9C5:!' :45B:!' <"B'
: -954-8:5:!' <"B' <=:-' -7' "56' :4&;:!' -7' 64&A4' &' 6<:' 45"'
B5A&B5B' 4<' -"5' <' =5<:' ?8:' 5C59' 5<9' J5' <BB5B' -'
45' 7=55' -": 98A &-"' -7' 4&:' D&"B' 6<:' B-"5' J' A-"S
9<A' 45' :4&;:' 6595' 5L;5A 5B' -' =<:' &"' >--B' A-"B& &-"'
4&9' 5<9:' <' =5<:' 45' -"<C5" 89<!' <' C5::5=' -7' :&L'
48"B95B' -":!' 6<:' J8&=' &"' C<' 45' 6<:' 6& 4' 9<D5'
&"' 4&:' 5L;5B& &-"' -' 45' 5:' "B&5:' &"' C <' 45' A<9S
9&5B' 4&:' 7=<>' <' <B&!' &"' C' 45' 4<B' J55"' 5"><>5B' &"'
5C5&' :59C&A5' -7' A-":5W85"A5' 64&A4' 4<B' J55"' 8"B59 <D5"'
:&"A5' 45' %855"@:' <AA5::&-"' 45' 6<:' A<8>4' &"' <' ><=5'
&"' 45' J5>&""&">' -7' C !<"B@9<"' -"' <:<"BJ<"D' <' 45'
=&&-8 4' -7' 45' A45=B !' 645"!' -' 8:5' -9B' -6<9BE:'
EC-9B:!' @&' 6<:' 4-8>4' &?;-::&J=5!' 8"=5::' :45' 4<B' J55"'
@?<B5' -7' &9-"!' 4<' :45' :4-8=B' "-' 4<C5!' J55"' :5C595=' &"$
ER895B' &7' "-' =-: @' 45' 6<:' >-' -77' @6& 4-8' <:;--"78=
@-7' 6< 59' &"' 459' 65==' @' <"B' <7 59' <' 4<9B' =&75' -7' 65" $
H&>4' 5<9:!' 45' B?&9<=' :<&B' @ 4595' 6<:' "-' &"' 45'
/ -9=B' <:9-">59' :4&;@H

45' A-:' <' 64&A4' C5::5=:' -7' 4&:' D&"B' 6595' A-": 98A 5B'
"B&A< 5:' 4<' <= 4-8>4' A-" 9<A -9:' B&B' 45&9' 6-9D' 65==!'
45' 6595' A-" 5" 5B' 6& 4' ?-B59< 5' ;9-7& :' 45' <&"S
J-6!' <' :4&;' -7' 7&C5' 48"B95B' -":!' C<:' :5' <7=-<' &' <' <==

6' &$5' &7.$5' &' $ * ' .$%/' N$*N!' *M33 - =44'5*. $!3

#

*M33

; -&" : 7 -9 :5< 7 -9 6 - 4 -8:<"B -"5 48"B95B ; -8"B: 45 #<">8<9B! <=: - -7 7&C5 48"B95B -":! 7 -9 6 - 4 -8:<"B :&L 48"B95B ; -8"B:H_ -9 <== - 6&"> 7 -9 45 B&77595"A5 &" 45 C<=85 -7 ? - "5 <J -8 4&9 55" 4 -8:<"B <"B :&L 55" 4 -8:<"B ; -8"B: 95: ; 5A &C5=

45 6<>5: -7 <" <J=5 :5<?<" 8"B59 5"9 # 4<B J55" :&L ; 5"A5 < B< ! -9 A<=A8=< 5B &" ?5< ! B9&"D! <"B A=- 4&">! <AA-9B&"> - 45 ; &&A5: -7 45 J5>&" "&"> -7 45 :&L 55" 4 A5" 89 ! 5W8<= - :&L : 4&==&">: -7 -89 ? - "5 8 -7 4&: 45 7 -8"B 4&: - 6" =&C&"> : 45 C<=85 -7 ? - "5 J5><" - 7<== 6& 4 45 &" 9 - B8A &- " -7 J8==&- " 79- ? ? 59&A<! 45 - C59" ? 5" <= 595B 45 ? - B5 -7 ; < S ? 5" ! 45 ? :5=C5: :8 ; ; = &"> 45 :4& ; :@ 9< &- ": " c c 45 :&L ; 5"A5 9&5B J 45 :<?5 : <"B<9B 6<: 6 - 9 4 J8 4955 :4&==&">:! <"B 45 :<&=-9 95A5&C5B &" ? - "5 :&L <"B 5&>4 ; 5"A5 < ? - " 4! 64&=5 -7 7 - - B @ -7 >- - B <"B @ :5<: - "<J=5 C&A 8<=: @ 4&: <== - 6<"A5 7 -9 5C59 7=5:4 B< & 5 7 -9 5C59 8"B< ! (- "B< ! 85:B< ! <"B 489:B< V 6<: < ; -8"B -7 J&:A8& -9 < ; -8"B <"B < 4<=7 -7 J95<BV < ><== - " -7 J559! <"B 6 - ; -8"B: -7 ?5< _ :<= J557V 795:4 J557 -9 ?8 - "! <: 45 A<:5 ?&>4 J5 " 4O 4955 - 459 B< : 45 4<B 45 :<?5 W8<" & -7 J557 <"B J&:A8& 6& 4 4<=7 <=&">" -9 < A - B! <"B 4<=7 < ; -8"B -7 J8 59 -9 < ; -8"B -7 A455:5 45 B&5 6<: -AA<:&- "<== C<9&5B J :8J: & 8 &"> J<A - " 7 -9 J557 <"B ?8 - "! 95 B8A&"> 45 :<= 7&:4 <"B&"A95<:&"> 45 J8 59 <"B A455:5V &" <== A<:5:! 4 - 65C59! 45 J559 <"B J95<B 95 ?<&"&"> A - "E : <" H 45:5 <== - 6<"A5: 6595 "5C59 <= 595B 64< 5C57

K <?5: -7 459 (<R5: @: :4&; : :5" - :5<! 5A . ,! *M3,$ <" 2! M33 - = 44 5* . $!3

K 9- ; -9 &- " -7 C&A 8<= 7-9 2!+++ ?5" 7-9 :&L $655D:! *M3* - 5: -7 . :5<?<"@: B&5 ! # *M3. 45 89S C5 -9 -7 45 <C - 45 -9B BS ?&9<=! 8= . F$ 8> . ! *M32 _

:!) / ! .3*.$5 * " "&$^ . 7.$ &4 / *" !&$ .3% &4 %/ .3 &4 5* . . (.$* 5 / $. *&3 " "&$ 4$ C 3 !& 35 .35 . /. 4 &4 #$ .5 .35 . ! *3 &4 35. *.3 7*3 7. . &7 5 5.* . 4* / .35 %/ . $3. 5 *3 $. / $ ". $ C .3 * * / .3 *3 3 .35 #

?&>4 ' J5' 45' C<9&< &-"' -7' ; 9&A5' 45' A-: ' -7' 5<A4' ?<"@:' 4955' B<&= ' ?5<=:' 9<">&">' 79- ?' 7-89;5"A5' -' :5C5";5"A5!' < ' 64&A4' & ' 4<B' ;59?<"5" = ' :5 =5B' J ' c ' 45' ;< ' 4<B' J55"' 9<&:5B' 4955' 5<9:' J57-95' < ' 45' &" 59A5::&-"' -7' &9' -4"' <6D&":' 79- ?' :&L' <"B' 5&>4 ' ;5"A5' < ?-" 4' -' 5"' :4&==&">: ' 45' &"A95<:5!' 4-65C59!' A-: ' "- 4&">' -' 45' 9-6"!' < : ?<==59' A956' J5 59' ;<&B' J5&">' 7-8"B' -' B-' ?-95' 5775A &C5' :59C&A5 ' <6D&":' :<&B' 45' 4<B' -J:59C5B' 4< ' 6& 4' 4&>459' 6<>5:' ?5"' J5A<?5' ?-95' 45<= 4 ' <"B' :5=7$95:;5A &">!' @:8A4' <:' A-8=B' ?<D5' :4&7 ' @7-9' 45?:5=C5:' <"B' D55;' 45?:5=C5:' A=5<"!KsC& 4-8 @C59?&" @H

' 45' 95A-??5"B< &-"' -7' 45' -??& 55' -7' c ?! 7&C5' "56' :4&;:' 4<B' J55"' <BB5B' -' 45' "<C !'=<9>59' 4<"' <" ' 64&A4' C595' <=95<B ' <7=-< '' 45' 9D' <=5&>4' <"B' 45' #&A -& ' -7' 5&>4 ' 48"B95B' -":!' 45' 5<9' <"B' 45' &B&I<J5 4' -"<:' -7"&"5' 48"B95B!' <"B' 45' 9&8?;4' -7' < 4-8:<"B ' 45' 7-89' =<: ' "<?5B' 4<B' "- ' J55"' A-??&:S :&-"5B' J57-95' c ' 45 ' 4<B' J55"' A-": 98A 5B' 8;-"' < "56' ;9&"A&;=5!' &" 9-B8A5B' J ' <6D&":' 45' 4&>4' 59":' <"B' 7-95A<: =5:' 6595' =- C595B!' 45' D55=:' =5"> 4S 5"5B!' <"B' 45' =&"5:' ?<B5' 7&"59' <"B' :4<9;59 ' =B' :5<?5"' H4--D' 45&9' 45<B:' < ' 45' &""-C< &-"!' <"B' 7-95 -=B' 45' &:8<=' B&:<: 59:' 45 ' 6-8=B' J5' --' A9<"D!' & ' 6<:' :<&B!' -' A<" ' :<&=' 45 ' 6595' 7& ' -"= ' 7-9' :?-- 4' C<59!' <"B' #-8=B' 7-8"B59' &"' 45' 45<C ' :5<:' -7' 45' =<" &A H' 45' %855"' 4<C&">' ;<&B' B5<9' 7-9' 45?!' :498"D' 79- ?' 5L;59&$

H& 4' 45' <BB& &-"' -7' ;5<:!' J5<":!' K 'B><9=&A!' ?<B5' &" -' :-8; _) ' $!(( )':2'5*('R) *') ' O'8) 9' *M,M' = ' $4B'!(' R*88 ' *+ ' 45' 4& &-&&:' E-7' ">=&:4' :-=B&59:' &"' 45' 45=B' 6595' -"' < 5 ' "&-95' =&J59<=' :A<=5 & &9' 5"9 ' &B"5 !' 645"' -9B' 5S ;8 !' 7&L5B' 45' B<&= ' <==-6<"A5' 7-9' <A4' ">=&:4' :-=B&59' &"' 95=<"B' < 6-' ;-8"B:' <"B' < 4<=7' -7' J557' <"B' < ;-8"B' <"B' 4<=7' -7' J95<B _ ,*$ '*(' $ ' L!3$+'8!(7'*6'$ ' ' .2' =44' 8'() ' +(' *M,M K <C<=' "-5:!' (<9A4' *M3M$2 _ ' =44'5*. $!3 K <6D&":' -' 89>4=5 !' 8= ' *,$' 92 < =44' :!)

#

*M33

#

*M33

?5" : 64&A4 ?&>=& :456 459 - 4<C5 A-8" 5"<"A5B <"
5L;5":&C5 7-== ! <"B 4<B ;9575995B :-7<9 -D55;45?
:<75< 45&9 ?--9&">:&"" 45 (5B6<
4&:6<: 45 A-"B&&-"-7 45 9- <="<C -7 ">=<"B
645"A<==5B -" -7<A5 45 ?-: ;-65978=7=55 64&A4
4<B 5L&: 5B79-?45 J5>&""&">-7&?5 45 ;9&C< 559:
;9-?&:5B -J5 8:578=<:<8L&=&<9&5: 45 >95< ?59S
A4<" :&"5C59 ;-9<9?5B 45 J5: -7 45&9 :4&;:!
-"B-" ;9-C&B5B 4&9 '$ -8 4<?; -"! --=5! <9 S
?-8 4! = ?-8 4! <9": <;=5! <"B 9&: -= A-" 9&J8 5B
<: 45 6595 <J=5 <"B ">=&:4 J9&>: <"B J<9W85: -7
6-48"B95B -":! 64&A4 "5C59K65" -:5< 6&4-8
J5&"> ;95;<95B -5"A-8" 59 ;&9< 5:! 6595 "-A-" 5?;S
&J=5 <==&5: -9B - C<9B -7 77&">4<?4<B <=:-6-
:4&;: -7 4&: -6"! <6D&": 4<B 7-89 -9 7&C5 9<D5
4<B < 64-=5 :W8<B9-"! 7-9 45 65: 59" ;9&C< 559:9<==&5B
-7 45?:5=C5: -4-7=<> -7 45&9 A4-:5" 459- 8&
6<: -" 45 %855"@: :4&;: 4< 45 J98" -7 45 J< =5
C-8=B 4<C5 -7<==! <"B <J-C5 45 =<9>5: -7 45?45
C<: ><==5-": <"B ><==5<::5: -6595B 8;4D5 =5?&:4
B9< $4-9:5: J 45 :&B5 -7 45 =&>4 9<J&<"A-89:59:
45 -"<C5" 89<! 45 -=B5" &-"! 45 <&"J-6V
<"B 45 95<B"-8>4 E 4<B J55" 6&4 9<D5 < <B&%V
<"B -" 9<D5@: 95 89"! A-" 9<9 -45 <BC&A5 -7 89>4$
=5 ! 4<B J55" ;<&B -77 <"B B&:?<" =5B 45 B-AD <9BH
4<B :877595B =&D5 5C59 -459 B5;<9 ?5" -7 45 ;8J=&&H
:59C&A5 79-?45 %855"@: B5 59?&"<&-" -?<D5 ;5<A5$
45 95;<&9&"> 6-9D 4<B 7<==5" 7<9 &" -<995<9: <"B &"
5;5?J59 c ! 645" 4&=&;:5" -9B59: -<" < 98H
-:<&=! <"B J<B5 <9?< ;95;<95 7-9 4&: &??5B&< 5 <9S
9&C<=! 4595 6<: "--<C5::5=&" 45 4<""5= A<99 &">E
45 %855"@: 7=<>=<9>59 4<" <;&""<A5 45 :4&;: C59p5
=&"> 4<=7$9&>>5B <-4<4<?! 6&4 "5& 459 A956: "-7$
-77&A59:! <"B 95W8&9&"> <== -7 45?- J5 5L<?&"5B <"B

957& 5B!' J57-95' 45 'A-8=B' J5' :5" ' -' :5<7-9' <6&" 59@:'
A98&:5' 5C59<=' 655D:' <' =5<:' 6-8=B' J5'A-":8?5B' J5S
7-95' ?5"' &"' :877&A&5" ' "8?J59:' A-8=B!' J5' A-==5A 5B' <"B' *M33
<&@?:' <"B' :-95:' <D5"' -"' J-<9B' 45' %855"!' &"' 5&S .3".$
A5: 59@:' 6-9B:!' Q 6<:' 95< &">' 7-9' ;5<A5' B&:<9?5B'@ <"B'
J<B' <" < 98I' J55"' <J=5' -' 8:5' 45' -;;-9 8"& !' 45'
6-8=B' 4<C5' 7-8"B' 4&:' 6<' -' (<9>< 5' -<B:' 6& 4-8'
95A5&C&">' -9' 7&9&">' <:4-' 89>4=5 !' 64-' 4<B' J5=&5C5B'
4<!' 7-9' 4&:' 5<9' <' =5<:!' 45' B<">59' 4<B' ;<::5B' -C59!'
<:' 9-8:5B' <' 45' J5>&""&">' -7' A-J59' 79-?' 4&:' B<"S
>59-8:' :5A89& ' 45' ><==5-"' 64&A4' 9<D5' 4<B' J9-8>4'
J-9"5' 6& 4' 4&?' &"' 8>8:' 6<:' :-=B' 6& 4' 459' A<&@>-!' <"B'
45' ?-"5' 89"5B' -' &":<"' <AA-8" H' "' 5?J<9>-'
C<:' =<&B' -"' 45' ?59A4<" $:4&;:' &"' 45' C<9&-8:' ;-9 :!'
<"B' 45"K' A956:' 6595' &?;95::5B' 7-9' 45' %855"@:' :59C&A5'
<6D&":' 6<:' B&95A 5B' -' ;8' 45' 64-=5' "<C' <:' 9<;&B='
<:' ;-::&J=5' &"' A-"B& &-"' 7-9' :5<" <"B!' -"' 45' 5 :' -7' 5$'
5?J5&@!' &": 98A &-":' 6595' :5"' -' -6<9B' -7' 77&">S
4<?' @ -' <D5' 45' :4&;:' &" -' 45' 4<""5=' -' B575"B' 45'
@ 95<=?' <><&":' 45' ;<"&<9B:@

8:' <:' &"' ;<&"' 45' &" 5"B5B' :-9?&">' -7' 45' :9-">S
4-=B' -7' 4595:' 4<B' :&995B' 45' A98:<B&">' :;&9&!' <"B' 45'
<:&=&<"' "-J=5:' 4<B' :5"' 45' J5:' -7' 45&9' :-":' -' 45'
9?<B<!' :-' 645"' 45' A<==' 6<:' :-8"B5B' <' =<:' 7-9' 45'
B575"A5' -7' ">=<"B!'&' 98">' =&D5' <' 98?;5 $"-5' 49-8>4'
4&<"-9$4-8:5' <"B' A<:=5' 45' A4&57' -7' 45' 4-8:5' -7'
-6<9B' 6<:' &"' 45' ;659!';9< &">' 7-9' 45' :8AA5::' -7'
45' :59C<":' -7' 45' -;5"' J8' 45' B?&9<=!' <:' &7' -'
&;5' 45' :<&"' 79-?' 45' :A8 A45-"!' J9-8>4' 4&:' :-"$&"$
=<6!' -9B' 4577&5=B!' <"B' -"5' <' =5<:' -7' 45' 8D5' -7

@ @ 45' >--B:' <D5"' J' &9' 9<"A&:' 45' ?59A4<":' <"B' -459' <BC5" 8959:'
J9<D5' &"' 45' 4&=&;' -7' ;<&"' -' J5' 5?;=-' 45&9:' 7-9' 45' <9?&">' -7' 45&9'
-9 5B' <"B' :-=B' 7-9' 95<B' ?-"5!':-' :4&;:C<, *$' !(' + 66NN$&C' '()'
<:' 459' (<R5:' ?<' 5?;=-' 459';-9S A' R' =44' 5*. $!3
&-"' 7-9' 45' <9?&">' -7' 45' "<C!' <"B

T' #

-&@7-=D@: :-":! - :59C5 < 4&: :&B5 -9B =5"9 5 S
#
?-89 A<?5 --! <"B <= 45 B&: &">8&:45B :5<?5"!
*M33
<"8<9
<6D&":! 9-J&:459! <=?59! -6":5"B! <"B "8?J59:
?-95! 64-:5 "<?5: 6595 -"= =5:: &==8: 9&-8: 9<D5
6<: <=95<B < = ?-8 4! 6& 4 4&: -6" :W8<B9-" -
;9&C< 559:! <"B 45 5C5">5! < %855"@: :4&; 64&A4 4<B
J55" :5" B-6" - 4&? 45 A-??-" :<&=-9: 64- 4<B
C-=8" 5595B Q6595 <: <J=5 < A-?;<" <: 6595 5C59 :55"@@
_ H= 7-8"B &" <;;<95=! <"B B5:&9&">! "- &?95<:-"<J= !
< ?-" 4@: 6<>5: &" <BC<"A5 - ;9-C&B5 45?:5=C5:! J8
-4596&:5 45 ;9&B5 <"B 7=-659 - ">=&:4 ?<9&"59: H
-9B -6<9B@: 7&9: A-??&::&-"! B9<6" J 9<D5@:
<BC&A5! =57 4&? 7955 - <A < 4&: B&:A95 &-"! Q - &"C<B5
Q 45 ;<"&:4 B-?&"&-":!@ &7 & :4-8=B J5 4-8>4 >--BV
-9 - >- 64595C59 45 :<6 < A4<"A5 - : 9&D5 < J=-6 H
45 7=55 6<: -" 7&95 6& 4 5" 48:&<:? 5<?5" <"B
-77&A59:! 4-"5: ">=&:4?5" 5C59 64595!! 4<B 7-9 5<9:
J55" =-">&"> - 4<C5 B-"5 6& 4 ;9&C< 559&">! 7<=:5 A-S
=-89:! =&5:! <"B ;95 5"A5:! <"B Q - 4<C5 < >--B :5C59O
Q -;5" 6<9 6& 4 ;<&"! <: 45 -"= 9-<B - <" 4-"-89$
Q<J=5 :5 =5?5" @ 45&9 6&:45: :55?5B =&D5= - JO
>9< &7&5B < =<: (&B$6&" 59 <: & 6<:! 45 >5"59<= B5S
:&95 6<: - 7-==-6 8; 9<D5@: 6-9D < <B&I! =&5-" 4O
A-<: -7 ;<&"! <"B 5& 459 B<:4 &" - 45 <>8: <"B J89"
45 7=55 <: & =< < <"A4-9 4595! -9 5=:5 5"9&A4 ">=<"B
<"B 98&" 4&=&; J :5&I&"> 45 "B&<" 95<:895: < 4O
?-8 4 -7 4&: -6" 4<9J-89: O

8 45 C5::5= -7 45 <5 6<: : &== 7<9 79-? -;5P
6< 59: - 45 B&:>8: -7 5C59 -"5 & 6<: <""-8"A5BV
&??5B&< 5= <7 59 45 &::85 -7 45 A-??&::&-"! 4< 4O
:59C&A5: -7 45 7=55 6-8=B J5 95W8&95B -"= 7-9 :& H

K -9B -6<9B - 89>=&=5 ! 5A! !)
..! *M3, _ (j 5*. $!3 O -5: -7 459 (<R5: @: :=&;H
K -?&::&-" - -9B -6<9B -7 :5" - :5<! 5A .F$ <" . _ =44A
&7&8>4<?! 5A .*$F* _ =44 !)

655D:!' J57-95' 45' 5"B' -7' 64&A4' 45' %855"' A-"7&B5" =' =&-;5B' 4<' ;5<A5' 6-8=B' J5' 5: <J=&:45B' 45' =&?& < &-"' & :5=7' ?<B5' <' B&: <"' 5" 59;9&:5' &?;-::&J=5' J8$:45' A-8=B' "-' 6<&' &=='5C5"' 4&:' :4-9' ;59&-B' 4<B' 5=<;:5B' 45' 4<B' <==-65B' 459:5=7' -' J5' ;59:8<B5B' J' &9' <?5:' 9-7:' 4<' :-=B&59:' <"B' :<&=-9:' 6&:45B' 7-9' 6<9' J5A<8:5' &' 6<:' 45&9' 9<B5!' <"B' 4<' =-6<9B' <"B' 9<D5!' &7' =57' <' :5<!' 6-8=B' B-' :-?5' 9<:4' $C&-=5"' <A &-"' 64&A4' 6-8=B' ?<D5' "5>-&< &-":' ?-95' B&77&A8=' ' 9<"B-?' :-9' A<?5' 8;' 79-?' ;<&"' 4<' 45' 9?<B<' 6<:' B&::-=C&">!' <"B' -"' 45' A95B&' -7' &' :45' B&95A 5B' 45' B&:?&::<=' -7' 4<=7' 45' A956:' 64&A4' 4<B' J55"' A-==5A 5B' <"B' 5"><>5B' <' :-' ?8A4' 5L;5":5' 45' -9B595B' 6-$ 4&9B:' -7' 45' 7=55' -' :<' &"' 45' 4<?5:' 6& 4' 95B8A5B' A-?;=5?5" :' 45' :5"' 9<D5' -' =&5' <' -9:?-8 4' 6& 4' 4955' :?<==' #5::5=:!' <"B' -9B' 5"9' 5?-89' -' A98&:5' :4-9$' 4<"B5B' $6& 4' 45' 95:' &"' 45' 4<""5=!' J8' 6& 4' :9&A' &"R8"A &-":" -' -' ;<::' J5 -"B' &

59' -9B59:' 6595' -J5 5B' 45' ?5"' 6595' B&:;59:5B!' 45' 7=55' 6<:' ?<B5' ;9<A &A<==' 8:5=5::!' <"B' 45' :5< 6<:' <><&"' -;5"' <"B' &' 6<:' <' 4&:' ?-?5"' 4<' 4&=&;!' <:' &7' 45' 4<B' B&C&"5B' 64<' 4&:' :&: 59$&"$=<6' 6-8=B' B-!' -9' <:' &7' 45' 4<B' 95A5&C5B' :5A95' &"7-9?<&-"' 79-?' ">=<"B!' 5"' 45' 9?<B<' 45' :5A-"B' -9B59:' -' :<&=!' 64&A4' 6595' P"78=7&==5B' -"=' 49-8>4' 45' B5< 4' -7' <" <' 98I !Q 5C59!@' :<&B' -9B' -6<9B!' :<C<>5' <' 4&:' ?&: 95::@: ;59C59:& !' "5C59' :&"A5 ">=<"B 6<:' ">=<"B' 6<: 4595' :8A4' <': 9< <>5?' <"B' ?<:D' ?<B5' -' B5A5&C5' 8:' @' 6& 4<=' <:' 4&:' 95< @H' @' 5' <95' 6<: &">' ?-"5R H' :<&B' &9' -4"' <6D&":!' @' 6<: &">': 95"> 4!' B&:4-"-89&">' <"B' @' B&:A95B& &">' -89:5=C5:' J' -89' 8"A59 <&"' B<== &"> @H

K = 59< &-"' &"' 45' -9B59' -7' 45' .,$ 5J' 2 _ =44' 5*. $!3
7=55 !' <"' *M33
K <6D&":' -' <=:&">4<?!' 5J'
K -6<9B' -' <=:&">4H?!' <" '! < =44' :!)

- (&&> 4< A-8=B J5 :<&B &" 45 =5<: <C<&=5B 45
#
?59A4<" $:4&;:! 6595 95=5<:5B! <"B 45 J5: -7 45 A956:
*M33 95R-&"5B 45?! <"B 65" 45&9 6< 8;-" - 459 C- <>5:!
<"8<9 J5 -"B 95<A4 -7 95A-C59 (-B :5"B ?5 -: 55 :8A4 <
HA-?;<" ->5 459 <><&" 645" "55B &:!! 69-5 45
-9B B?&&$<= H 7 45 ;-659 -7 ;<&" A-?5 J57-95 45
K ?&BB=5 -7 ;9&=! 4595 6&== J5 <: ?8A4 <B- -: 4<C5
(?5" -: 789"&:4 8:!<: 5C59 6<:! <"B ?5" 65 ?8: 4<C5!
(-9 45 :4&;: 6&== B- "-> - - B @H (4< B&B ?-C5 459
(<R5: !(45 A-" &"85B! (-: B&?&"&:4 -89 7-9A5: -" 45
:8BB5" D"-6 "- 7 <" 4&"> J5 < 5?; 5B "-6
(8;-" 45 :8BB5"! 5& 459 7-9 A- =<"B -9 -: &"C<B5 4&:
(A-<: ! 65 :4<== B-: <: ?8A4 >- - B 7-9 45 :59C&A5 <: 45
(4- : 64&A4 =&5 < - "W8< 4595 &: " -: ?<: 59 &"
(">=<"B 4< 6&== 8"B59 <D5 6& 4 45:5 ?5" 4< <95
("-6 &" 45? -: A<99 45 :4&;: J<AD -: 4< 4<?
(89 : < 5 &: 65== D"-6 " &" =<"B59:! <"B <: 65 6595
(< 599-9 -: 45?< -89 7&9: A-?&"> -8 ! :-" -6 45
(?<D5 =& =5 95AD-"&"> -7 &: 45 D"-6 4< 65 <95
=&D5 J5<9: &5B -: : <D5:! &<"B 45 ?< A-?5 <: B->:
(-775"B 8:! <"B 65 A<" "- 489 45? @H
 6-8=B 4<C5 J55" 5<: "-6 7-9 <9?<! &7 45
65< 459 6-8=B 4<C5 <==-65B 4&?! 5& 459 -: =<"B < 75
4-8:<"B ?5" -" 45 A-<: -7 &75! -9 -: 9<":;-9 4&:
5" &95 <9? - ">=<"B -6<9B A-8=B "- 4<C5 7&95B
< :4- -: &" 597595 6& 4 4&? 45 A- A4 ;=<"! 4- E
5C59! 4<B J55" >&C5" 8; 7-9 95<:-":J5: D"-6" -
4&=&; 45 65< 459 6<: 6&=B <"B J-&: 59-8: J5 -"B
5L;59&5"A5 L;-:895 <"B :&AD"5::4<B 4&""5B 45
9-==: -7 45 9&"A5@: A-?;<"&5: 7<9 J5=-6 45 "8?J59
6& 4 64&A4 45 J5=&5C5B 4< 45 A-8=B ;98B5" = ?<D5
45 C5" 895 " -9 &7 4&: 9<"D: 4<B J55" <: 78== <: 45

E -6<9B - <=:&">J<?! <" O -6<9B - <=:&">J<?! 5J
< $ 5J , _ =44 5*. $!3 < =44 :!)

A-8=B' 4<C5' 6&:45B' -' :55' 45?!' 6-8=B' 45' 4<C5' 9&:D5B' 4&:' <9? ' 8;-"' 45' 4<""5=' &"' 45' 6<C5$:65;' 4-:' <"B' J<9>5:' -7' 45' 5=>&<"' ;-9 :!' &==' <' ?-95' <BC<"A5B' :5<:-"' J9-8>4 ' :?-- 459' :5<:' 45' 6-9:' <A 8<=' ?&:S A4&57' 6<:' 45' 7<=:5' 5A-"-? ' -7' 45' A4<">5:' -7' ;=<"!' ' 655D' <7 59' 45' :95"> 4!-7' 45' 7=55' 4<B' J55"' 95S B8A5B!' 45' %855"' >956' 8"5<: ' <' J5&">' B575"A5=5::' 9B59:' 6595' :5" ' -' 95: -95' 5 ?-89@:' :W8<B9-"' -' &:' 78=' "8?J59:!' 64&=5' 45' :4&;:' &"' 45' 4<?5:' 6595' 95S A<==5B' -' 4< 4<?' -' J5' ;<&B' -77' ' 7-9 "&>4 ' =< 59!' &"' <' 795:4' ;<"&A!' 45 ' 6595' A-??<"B5B' <><&"' -' :5<' ?5"' 4<B' -' J5' A-==5A 5B' 64595C59' 45 ' A-8=B' J5'7-8"B!' <"B' J-8" &5:' <"B' <==-6<"A5:' 6595' ?<B5' "5A5::<9 !' 64&A4' B-8J=5B' 45' A-:' <' 64&A4' 45 ' A-8=B' 4<C5' D5;' &"' A-??&::&-"' 79-?' 45' J5>&""&">

4595' 4<B' J55"' 45' :<?5'@8"A59 <&"' B<== &">'@ 6& 4' &9' 9<"A&:' 9<D5' ' 45' -9B59' -' -9 :?-8 4'6<:' 95S A<==5B!' <"B!' <' 4&:' 5<9"5:' 5" &@5< !' 45' -J <&"5B' =5<C5' -' >-' B-HC'" -' 45' A-<:' -7' ;<&"' 6& 4' 45' 5C5">5' <"B' 45' ;9&C< 559' :W8<B9-"' 8 ' 45' ;59?&::&-"' 6<:' 6& 4B9<6"' <:' :--"' <:' >&C5" ' = 4-8>4' <9?<' 4<B' B&:&"A = ' 95S 78:5B' -' >9<" ' <' >5"59<=' <9?&: &A5!' 64&A4' 6-8=B' >8<S 9<" 55' ">=<"B' <><&":' < <AD:!' 45' %855"' B&:A-C595B' 4<' &7' 9<D5' :4565B' 4&?:5=7'-77' &:J-"!'@& ' 6-8=B' J5' <'@4&"B9<"A5' -' 45' ;5<A5' 45' &">'-7' ;<&"' 6-8=B' <D5'@& ' &== @

& 4' 45' :?<=' ;9->95::' ?<B5' J ' 459' -??&::&-"59:' &"' =<"B59:!' <"B' 6& 4' 45' B<&=' 95;-9 :' 64&A4' A<?5' 4&' 79-?' ;<&"' -7' 45' <;;9-<A4' -7' 45' 9?<B<!' :45' A-8=B' "-' 9578:5' -' <==-6!' 45' 7=55' -' 95?<&"' <' :5<' 8 ' :45' ;59?& 5B' :-?5' ?&:59<J=5' :A-8"B95=' -' =<' <;=<"' J57-&E5' 459' 7-9' :<C&">' 5L;5":5:!' J ' A8 &">' B-6"' 45' :5<?5"@:' B&5 :!' : -;;&">' 45' J557' <"B' ?8 -"!' <"B

#

*M33
."06

:5 &"> 45? - B575"B 45&9 A-8" 9 <"B 459 49-"5!
-" 7&:4! B9&5B ;5<:! <"B -&=H =&">&"> - 459 4-;5: -
;5<A5! <"B <79<&B ;9-J<J= -7 45 "<C 5"B<">59&"> &!
:45 &5B 45 :4&;: - 4<9J-89 J :8;;= &"> 45 : -95:"
B9&J=5 : 45 <==-65B 9< &-": J8 7-9 < ?-" 4 < <
&?5! <"B ;59?& 5B "- 95:59C5: - J5 ;9-C&B5B &" 45
C&A 8<==&"> -77&A5: 9<D5 4<B -775"B5B 459 J A-":8?S
&"> <? ?8"& &-" < <9>5 ;9<A &A5 45 6-8=B "- >&C5
4&? < :5A-"B -;;-9 8"& Q 45 ;9-;-9 &-" -7 ;-6$
H B59 @ &" 45 =<9>5: :4&;: 6<: Q :877&A&5" J8 7-9 < B<
Q <"B < 4<=7@: :59C&A5 &7 & 6<: J5>8" <"B A-" &"85B <:
Q 45 :59C&A5 ?&>4 95W8&95'@ &" 45 95: -7 45 7=55 Q&
Q 6<: :877&A&5" J8 7-9 -"5 B< @: :59C&A5 @H Q --B ?
Q =-&EB:!@ 5L;-: 8=< 5B 9<D5 6& 4 45 -8"A&=! Q A-":&B59
Q B55;= -7 4&:! 7-9 & &?;-9 5 4 45 =-:: -7 <== @H
6<: "- 7<8= -7 45 -8"A&= 45 -8"A&= 6-8=B "-
4<C5 =57 9<D5 - <:D 7-9 64< 6<: -JC&-8:= "5A5:S
:<9 45 %855" 4<B <D5" 8;-" 459:5=7 45 B5 <&=5B
?<"<>5?5" -7 5C59 4&"> -9B -6<9B@: =5 59:
;9-C5 4< :45 <"B :45 -"= 6<: 95:;-":&J=5 : &7
5C59 -77&A59 :45 ;-::5::5B 6595 &" <A-":;&9<A - 98&"
459! :45 <;;5<9: - 4<C5 D5; <== B5:A9&; &-": -7 :8;;=&5:
6& 4&" 459 -6" 95<A4 &" -"B-" 29 < 4< 4<?! ;59S
?& &"> "- 4&"> - J5 :59C5B -8 6& 4-8 <" -9B59 79-?
459:5=7" <"B 45 :4&;: < = ?-8 4! 789"&:45B 79-? <

f B ($ " .3? (*% . &4 # 4 " / 5. .35 */ $ .D 4& $! 3%P / 5. 7& ! 3% / !& 35 # *5 %. A .35 . & / " # *3 4& $! $ &3 ."& 3 / & *> 3 ! 3% / 5. 4&$ / *$ " . # *5 #$ .5 .35 5$*3A . $*3 /. A*35 &4 (*% . & 4* / &* .35 ! . / $ .D ? %/.$ 7* # # /$! 3% 4&$ /$ 4* / / 5. . 3 /* *3 / / 35$ 5 &4 ' 7 .35 4* / 7& ! 3% *3 &* 4&$ /

/ 5. .35 7& ! 3% *3 ! . . 7& /* *3 / # / 7* / &3 ! 33 !&3 ($ " / 5. *3 %. A .35 & / $ %/.$ 7/*%/ ."& 3 / &*3 . * / ! 3% / 5. &3 ($ " 7/*%/* /. 4 / %/.$ /. # 4 5*5 .35 ?- R *
L! !*(*6 L!3$+ '8 '6* '$ '68 $.$%/ *.$.. = 44 5*. $!3
K 9<D5 - 45 -&?A&=! (<9A4 F+H
;9&= N
S :!)

B&: <"A5' 6& 4' :?<=' W8<" & &5:' <' <' &?5!' 6595' -7 5"' 7-9'
?<" ' B< :' 6& 4-8 '7--B' -7'<" ' D&"B
@ 8A4' <' 4&">' 6<:' "5C59' 45<9B' -7' :&"A5' 4595' 6595' *M33 !$*
@ :4&;:' &"' ">=<"B!@ -9B' -6<&@B' 69- 5' -' 89>4=5 !'
@ <:' "-@C&A 8<=:' &"' : -95' 59' (<R5: @:' 7< 459' "5C59'
@ ?<B5' <'=5::' :8;;=' 4<"' :&L' 655D:!' <"B' 5' 4595' C<:'
@ ?<9C5=-8:' 45=;' 8;-"' 5L 95?& !'7-9' 4595' 6595' 5C59'
@ ;9-C&:&-":' <' -9 :?-8 4' <"B' <=:-' <' -C59' : -95'
@ 5C59' <' 4<"B' 8;-"' "5A5::& @H
"B' <><&"' -' <=:&">4<?'_
@ '<?' C59 E@ :-99' 459' (<R5: '&:' :-' A<95=5::' -7' 4&:'
@ ?-:' B<">59-8:' &?5' ' 75<9' -C59' ?8A4' <"B' 6& 4'
>9&57' 4&"D' &!' 459' (<R5: '95=&5:' 8;-"' <' 4-;5' 4<' 6&=='
@ B5A5&C5' 459' <"B' >95<=' 5"B<">59' 459!' <"B' 45"' &' 6&=='
@ "-' J5' 459' ?-"5' "-9' 459' R565=:' 4<' 6&==' 45=;' 459'
@ 7-9' <:' 45' 6&==' B-' >--B' &"' &?5!' :-' 6&==' 45' 45=;' "-$
@ 4&">' 7-9' 45' 95B55?&">' -7' &?5' J5&">' =-:' ' B<95'
@ :<' 459' (<R5: ' 6&==' =--D' 4<' ?5"' :4-8=B' 7&>4' 7-9'
@ 459!' <"B' 'D"-6' 45' 6&==' J8' ' ;9<' 45<9 &=' 7-9' <'
@ ;5<A5!' 7-9' ':55' 4<' 64&A4' :4-8=B' J5' 45' >9-8"B' -7' <"'
@ 4-"-89<J=5' 6<9' 6&==' "5C59' <;;5<9' 7-9' :;<9&">' <"B'
@ <9' 4<C5' "-' <7&B"& ' ->5 459@H
45' <=59<&-":' -7' ;89;-:5' 4<B' A95< 5B' :-' ?8A4' A-"S
78:&-"!' 4<' 45' 7-89' =<9>5:' :4&;:!' 45' 9&8?;4!' 45'
#&A-9!' 45' =&I<J5 4' -"<:!' <"B' 45' 5<9!' 6595' 7-9'
?<" ' 655D:' =57' J54&"B' 7-9' 6<" ' -7' 4<"B:' -' ?<"' 45?!'
@ D55;&">' 4< 4<?' 489A4@Ó 45' %855"!' &"B55B!' 4<B'
-":&B595B' 4<' 45' 6-8=B' "-' J5' 6<" 5B!' <"B' 4<' &'
k H8B J5' <' 6<: 5' -7' ?-"5' -' 957&' 45?' ' 45'
7 5>&""&">' -7' (<!' 45' 4-;5:' -7' ;5<A5' 4<C&">' 7<B5B'
&&6<!' <"B' A59 <&"' &"7-9?<&-"' 4<C&">' <99&C5B' 4<' 45

6 &7.$5' &' $/ ' !$* ' ,$*, = '
1 = '5*. $!3' M &7.$5' &' . *3 /." ' .$%/
6 &7.$5' &' . *3 /." ' !$*' -'

9?<B< 6<: -" 45 ; -&" -7 :<&=&">! 45 -8"A&= :-7<9 ;95C<&=5B 4< 45 6595 ;8 &" -9B59! <"B <==-65B - R-&" -6<9B &" (<9>< 5 9-<B: 8; ;=&5: 6595 &::85B - 45 5" &95 7=55 ! A<=A8=< 5B - =<: - 45 ?&BB=5 -7 8"5 <"B =5<C&"> -9B 5"9 5 ?-89! 6& 4 45 #<">8<9B! 45 <&"J-6! 45 " 5=-;5! <"B < :W8<B&E-" -7 ;9&C< 559:! - 6< A4 8"D&9D! 45 B?&9<= : --B B-6" 4<""5= - R-&" 9<D5! <"B 6<& 7-9 45 ;<S "&<9B:@ A-?&"> --D&"> &" - -8=->"5 -" 4&: 6< ! 64&A4 45 8D5 -7 8?<=5 6<: C<&"= J5:&5>&">! 45 6<: -77 = ?-8 4 -" 45 ?-9"&"> -7 45 5?9B -7 (< x 8"5 <"B 9<D5 6& 4 7-9 :<&=! <BC5" 8959: <== -7 45?5LA5; 45 5C5">5! <"B :5" - :5< J 4&?:5=7 <"B 4&: 79&5"B:! A<?5 -8 - ?55 4&?! <"B 45 8"& 5B 7=55 :! &?;-:&"> < =5<: &" "8?J59:! 5" 595B 45 -8"B ->5 459 RR&5: 4<B J9-8>4 6-9B 4< 45 9?<B< &" 5"B5B - :<&= &" 45 ?&BB=5 -7 45 ?-" 4 " 45 A-"B& &-" -7 45 ">=&:4 ?<><I&"5:! & A-8=B "- A-?5 --: :--" <"B 45 ;=<" 6<: - <D5 &" 6< 59! <"B < -"A5 ?<D5 7-9 45 ?-8 4 -7 45 4<""5=! <"B 7-9A5 <4 5"><>5?5" &" 45 -;5" :5<

45 65< 459! 4-65C759! A-" &"85B B5:;59< 5 < 6&=B 6&" 59 4<B J55" 7-==-65B J < 6&=B59 :;9&">! <"B 45 =5"> 45"&">B< :6595 : &== 45 -"= :&>":-7 <;;9-<A4/ &"> :8??59 :5C595 :-8 4$65: 59= > <=5 :5 &" = ?-8 4 9-<B: 5<B! 8"B575"B5B J < J95<D6H< 59! 6< < B<">59-8: <"A4-9<>5! <"B - ;8 - :5< 6<: ?-95 B<">59-8: : &== -6<9B! 6& 4 45 >95< :4&;:! --D 4&: A4<"A5! <"B =< 9-==&">" &" 45 -8"B! @B<"A&">" =8: &= @<: 45 ><==<" 5: B<"A59 < -89 @ <B 45 >-"5 &" - 45 4<9J-89! 45 A-8=B "- 4<C5 A-?5 -8 8"=5:: 45 65< 459 ?-B59< 5B 45 95: -7 45 7=55 ! J5&">: ?<=5&K <"B ?-95 ?<"<>5<J=5! 65" 7-9 :45= 59 &" - 45 ?-8 4 -7 45 <?<9! <"B 4595 =< A4<7&"> 6& 4 & ?;< &5"A5

64&=5' 45&9' ;9-HB:&-":' 6<: 5B' <6< ' 95:4' :8; ;=&5:' 4<B' J55"' ;9-?&:5B!' J8 ' 45'B< :' ;<::5B!' <"B' 45' &A 8$' <==&">' J- :' B&B' "- ' <&@9&C5"' -"' 45' < 4' -7' (< ' x 8"5' *M33 !3 4 !' 4595' 6<:' J8 ' 7--B' 7-9' 5&>4 55"' B< :!' <"B' 5C-"S :4&95!' : 9<">5' -' :< !' A-8=B' "- ' 789"&:4' <" 4&">' 7' 45' 5&>4 55"' B< :' 9<"' -8 !' <"B' 45' ;<"&<9B:' A<?5' < ' 45' 5"B' -7' 45?!' 45' :<&=-9:' 6-8=B' 4<C5' -' >-' &" -' <A &-"' : <9C&">' 45 ' A-" &"85B' &"' >--B' : ;&9& :!' 95<B !' @&7' 65==' 4<"B=5B!@ -' >-' 49-8>4' 7&95' <"B' 6< 59 ' 45 ' $ ' ;8 ' -"' :4-9 ' 9< &-":!' J8 ' 45 ' A<8>4 ' 7&:4' -' 5D5' -8 ' 45&9' 95B8A5B' ?5::$B&""59:' 4595' 6<:' :&AD"5::!' J8 ' 45 ' 6-8=B' "- ' &5=B' -' & "' -"5' <"B' <==' ;9< &">' -"= ' 5& 459' @7-9' 45' :;55B ' A-?&">' -7' 45' 5"5? !@ -9' 45' 5L;5A 5B' J8 ' =&">59&">' C&A 8<==59: H

45' &?;95::&-"' =57 ' 8;-"' 4-:5' 64-' 6595' < ' 4&:' &?5' ?-:' <J-8 ' 45' %855"!' 64-' :<6' 459' B<&= ' <"B' 9<":<A 5B' J8:&"5::' 6& 4' 459!' 6<:' 4< ' :45' 6-8=B' :8AA55B' 4&:' &?5' &"' 64< ' :45' 4<B' -7 5"' 5:A<;5B' B-&">' J ' <' "<99-6' <AA&S B5" !' <"B' 7&"<== ' 98&"' J- 4' 459:5=7' <"B' 45' A-8" 9?s' 45' "-6' D"56' 4< ' &"' B<"A&">'<7 59' ;5<A5!' :45' 4<B' J55"' ;89:8&">' <' ?&9<>5!' 5 ' 45' D"-6=5B>5' ?<B5' "-' B&7S 7595"A5' 45' 6<:' &"A<;<J=5' -7' ;59:-"<=' 75<9!' <"B' :45' :D&;;5B' <"B' R-D5B' <"B' 69<">=5B' -C59' 459' ?-"5 $J<>:!' <:' &7' 45' ;<"&:4' 7=55 ' 6<:' <' B95<?!' <"B' 4&=&;' 7<J8=-8:' <:' < 6&I<9B' -7' 9-?<"A5 ' @ ' <?' :-99 !@ 69-5' <=:&">$' J<?' 79-?' 4&:' J5B' -!K 89>4=5 !H@ -' :55' :-' >95< ' <' B<"$' @ >59' 4<">&">' -C59' 4&:' 95<=?' :-' :=&>4 = ' 95><9B5B' <"B' @ :-' A<95=5::= ' ;9-C&B5B' 7-9 ' ' 6-8=B' -' -B' 45' 5"5? ' @ 595' "-' ?-95' A<9578=' -' <::<&=' 4<"' 65' -' B575"B!' <"B' @ 4595' 6-8=B' J5' 45' =5:' A<8:5' -7' 75<9 ' 55&">' 4< ' @ 65' 4<C5' "5& 459' 95A-89:5' -' ;9< 59!' "-9' -' :8A4' 57$

-' <=:&">4<?!' 8"5 K <=:&">4<?' 6<:' :8JR5A ' -' 8"5' *1$.1 _ E ' $ * 5;&=5;: !'<"B' 6<:'= &">!' <:' 45' ;< 45S ! &A<== ' :<&B!' @ 6<& &">' 7-9' ? ' 7& @

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*M33
8"5

K75A 8<=H;95;<9< 9J":<: 45 A=<">59 &?;-9 5 4! A<"$
"-J8 AJ"A=8B5 <AA-9B&"> -?<"@:R8B>?5" !:<=8:
&z?:<"-"";-5: :59C<95 4<"A 95?;8J=&A<?@H
-9 45 B-C5 -7 5:8: 49&:! (<B<?!@ :<&B -9B
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5 6<: <BB95::&">5<9:! A=-:5B J <=5C& <"B -J:&"<A
64&A4 6595 <=&D5 &"A89<J=5 45 C&A 8<=59: A<?5 -
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J8 5B -?<D5 45?=<: 7-9 :&L 655D: <=5<: H &H
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J-95 & 6& 4-8 A-?;=<&"&"> 45 J559 64&A4 4<B
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45 J-95 4&: --! -9 6-8=B 4<C` J-9"5&! J8 4<&
J9-8>4 B :5" 59 !! <?-95 B95<B5B 5"5? 4<" 45
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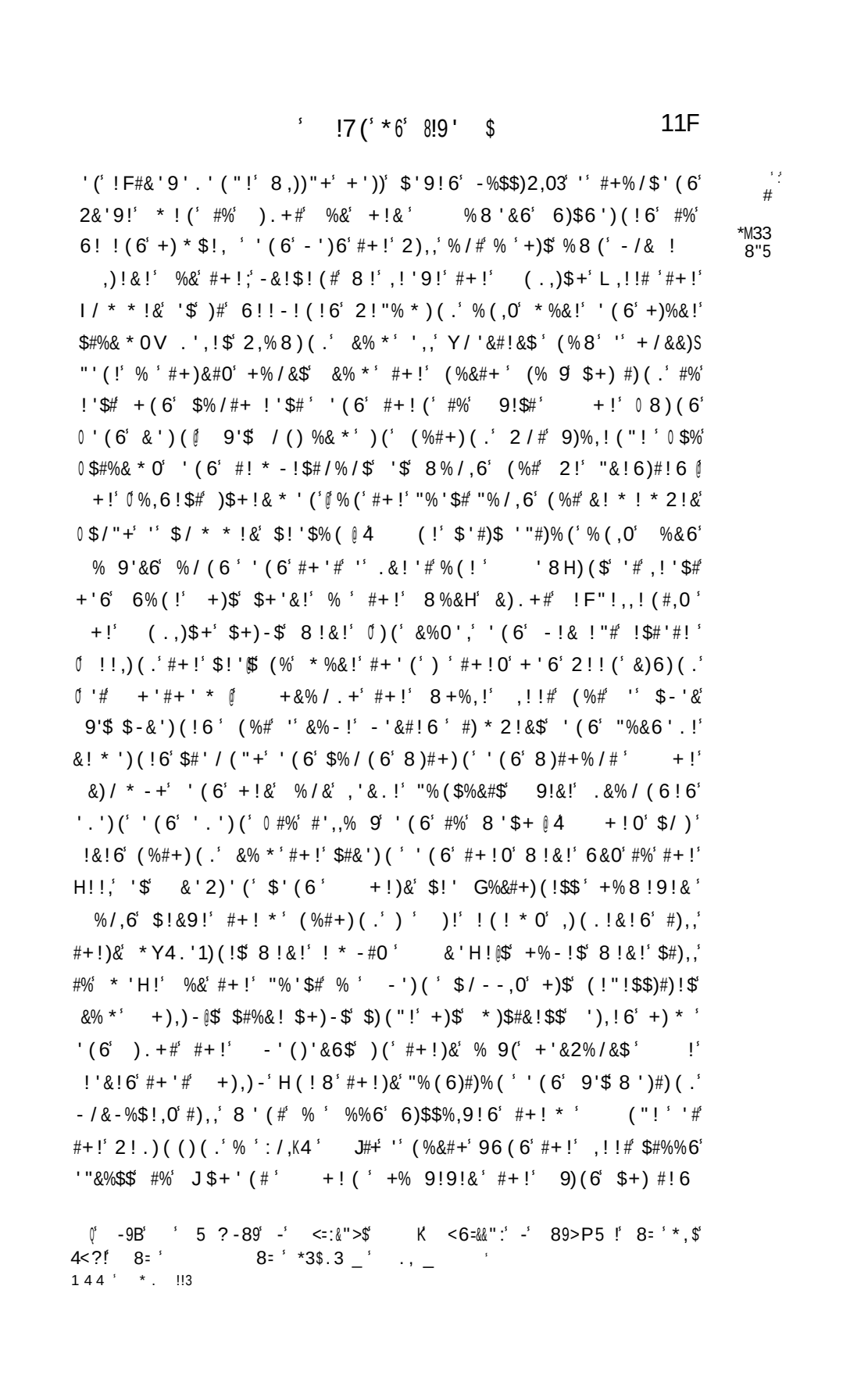
-6<9B -9B595B 6&"5 <"B <99-69--<= ?-8 4 -"
45&9 -6" 95:;-":&J&=& 7-9 45 :&AD J5B: 45" <=
6<: -C59! 45 %855" A<=5B 45?-<:4<9;<AA-8" 7-7

K <=:&">J<?-89>4=5 ! 8"5 K -9B -6<9B -=&I<J5 4! 8"5
&R$.N _ $ % .F$ 8=F _ :!)



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C54 895 789 459! 9<" J<AD - 45 -8"B! <"B 4595 45
*M33 4 6<& 5B &" <==! 65" $"&"5 %855"@: :4&;: 47 <== :&I5:!
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:;9&"> ?-" 4: 4<B J55" <:A5"5 -7 5L 9<-9B&"<9 A-"78S
:&-" 4955 "<&-":! ;<"&:4! <=&<"! <"B -9 8>85:5!
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5C59 A-9"59 -7 45 D"-6" 6-9=B_ ><==5 :=<C5: 79-& H
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5L&=5B ;9&5: :! 9&:4 <"B ">=&:4! >< 459&"> =&D5 9<C5"H
- 45 :;-&= -7 45 4595 &A: -9B <= &">=<:: 6<: 459fH
79-? 45 &AD=-6 4&==:" -9B (<L65==! 89"5B "-HH
&" - <9= -7 (-9-"! 79-? 45 A- A4 J-9B59:" <=Aj
@ -""-9! < B&: &">8&:45B @ ?89B5959!@ @ 64- A-8=B
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K -" -7 &9 <?5: & I>59<=B! 64- 6<: D&==5B &" 45 6--B: -7 (<=-6 0

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*M33
8=

<"B' -= ' 45' 7<& 478=' -7' <==' A-8c 9&5:' 4<B' 98:45B'
->5 459!' <:' < ' 45' A<==' -7' <"' <9A4<">5=!' -' <D5' ;<9 ' &"'
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?-">' 45:5' 5=5?5" :' (5B&"< &B-"&< D5; ' :8A4'
-9B59' <:' 45' A-8=B!' 4&:' A4R57' B&77&A8= ' J5&">' -' ;95C5" '
;<"&<9B:' <"B' -9 8>85:5' 79-?' J95<D&">' 5<A4' - 459@:'
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&-":' 6595'ÅA-?;=5 aB'' 45' ><==5-":' 6595' 5W8&;;5B' 7-9'
:5<!' 45' : -95:' =<&B' &"!' 45' :-=B&59:!' :<&=-9:!' <"B' C-=8"S
559:' <==' 5?J<9D5B ' "' 45' 7=55 ' & :5=7' 45' 95<:895:'
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C&A5' -"' 64&A4' 45 ' 6595' >-&">!' <"B' -' :5A895' 45'
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45' A5=5: &<=' 4&59<9A4 ' 45' "<?5:' -"' J-4' :&B5:!'
5& 459' J ' <AA&B5" ' -9' ;89;-:5!' A-995:;-"B5B' -' 45' A4<S
9<A 59' -7' 45' : 98>>=5"' 45' ' (< 456!' 45' ' 4&=&;!'
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B5 59?&"<&-" H

5L ' -' 45' ><==5-":!' 6595' 7-89' ><==5<::5:!' >&><" &A'
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48"B95B :=<C5: E "' <BB& &-"' -' 45:5!' 6595' 7-89' =<9>5'
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*M33 8= 4< ' ;<&"$;-::5::5B!' <"B' 65" 'A<9<C5=:' -9' ;&""<A5:'
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45' ">=&:4' "<C !0/5LA5;' 45$7&C5' 64&A4' 4<B' J55"' =<:'
<BB5B' -'& ' 45' <>>95>< 5' -7' A<""-"' 6<:' 6-' 4-8$
:<"B' 7-89' 48"B95B' <"B' 4&9 ' 45 ' 6595' J9<::' <"B'
&9-"' -7'C<9&-8:' :&I5:!' 45'7&"5:' 4<' 45' ;<"&:4'7-8"B9&5:'
A-8=B' ;9-B8A5' 45' 65&>4' -7' ?5 <=' 64&A4' 45 ' 6595E
<J=5' -' 49-$CC' 5LA55B5B' 5"-9?-8:=' 45' ;-659' -7' 45'
">=&:4' J9-<B:&B5:' "' A-?;5":<&-"!' 4-65C59!' <"B'
?<D&">' 8;' 7-9 8"< 5=' 7-9' 45' &?;5975A' ;9-C&:&-"'
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:&">=5' <A &-"' 6-8=B' B5A&B5E 45' : 98>>=5!' <"B'&' <?-8" 5B'
-' J8' 7&7 ' 9-8"B:' 7-9' 5<A4' >8"
45' : -95' -7' ;9-$C&:&-":' 6<:' 5"-9?-8:' ' 6<:' &"S
5"B5B' 7-9' 45' 8:5' -7' 45' <9? ' <7 59' &' =<"B5B' &"' ">S
=<"B!' <"B' 6<:' :877&A&5"' -' 755B' 7-9 ' 4-8:<"B' ?5"' 7-9'
:&L' ?-" 4:' 45' ;-6B59' <"B' =5<B' 7-9' :?<==<9?:' 6<:'
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45' <?-8" 5B' -' "-' ?-95' 4<"' 5&>4' 4-8:<"B' 45'
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K 0' -:' B&A4-:' "<C&-:' C<"' <9?<B-:' J9&"<:' '=<:' NF1' B5' 4&599-' A-=<B-' ' ' ' '
A-"' L!1$F& ;&5N<:' B5' <9 &==59X<!' *!1N,' ;<9<' =<' B&A4<' <9 &==59X<' :5' =5C<"'
B5' J9-"A5' B5' -B-:' A<=&J95:' '5" 95' *.F!,N+' J<=<:0<' 7' * ') ' +]'
5=<:' ?8A4-:' AY"-"5:' ' ?5B&<:' A8=5S . .*' =44' 4!.'(3'

4-8:<"B' -7' >5" =5?5"' C-=c" 559:' <' 4-8:<"B' :&L'
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&?;-9 <"A5' -' J5' B5:A9&J5B' ;<9 &A8=<9= ' &"' 45' ;<"&:4'
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8 A4?5"!' 64-' 9-65B' <:' :=<C5:E &"' 45' ><==5 :' <"B'
><==5<::5:!'7

(5B&"<' &B-"&<'4<B' J55"' 95A-??5"B5B' -' 45' A-?S
?<"B' &"' A4&57' J ' 4&:' 9<"D!' <"B' J ' 4&:' A-""5A &-"' 6& 4' E'
45' 9&"A5::' -7' J-=&' J8 ' &??5B&< 5= ' 8"B59' 4&?' 6595'
45' <J=5: ' -77&A59:' &"' 4&=&;@:' B-?&"&-":' (<9 &"5I' B5'
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:<&B' -' J5' 45' J5: ' :5<?<"' 4<' ;<&"' ;-::5::5B' "5L ' -'
<" <' 98I ' 5B9-' B5' #<=B5I!' >5"59<=' -7' 45' :W8<B&@-"'
-7' "B<=8:&<!' 4<B' A-??<"B5B' 45' ;<"&:4' 7=55 ' -"' 45'
A-<:' -7' -==<"B!' 645"' -"' -4"' 6<:' &"' 45' 5 459S
=<"B:!' <"B' D"56' 45' ">4:4' 4<""5=' 65==' (&>85=' B5'
W85"B-!' 64-' 4<B' 45' :W8<B9-"' -7' 8&;&:A-<!' 6<:' <'
;<"&:4' 4&=&;' &B"5 !' <' -8">' A4&C<=9-8:' "-J=5?<"'
-7' B&: &">8&:45B' ;9-?&:5!' 64-!' <' ?-" 4' J57-95' 45' 7=55 '
:<&=5B!' 4<B' -J <&"5B' 79-?' 45' &">' <' 95=8A <" ' ;59?&:S
:&-"' -' <D5' ;<9 ' &"' 45' 5L;5B& &-" ' ?-">' 45' - 459'
g&<?5:' -7'&" 595: ' &"' 45' =&: ' -7' -77&A59:' 6<:' 4<' ' -7' 8>4'
B5' (-"^<B<!' A4&57' -7' 45' ><==5<::5:!' ?<B5' 95?<9D<J=5'
J ' 45' 7< 5' 64&A4' -C59 --D' 4&?'' 4<' ' -7' &5>-' B5' &$'
&"5" 5=!' <7 596<9B:' #&A59- ' -7' (5L&A-'' <"B' ?-95' ;<9S
&A8=<9= ' 4<' ' -7' 45' J9&==&<" ' -"' =-"I-' B<' 5 C<!'
k EC4' A-??<"B5B' 45' =<"B' 7-9A5:' -9"' -7' <7<?&=' 64-'
J<B' 7-9' :5C59<=' >5"59< &-":' J55"' 45' 599-9' -7' 45' (5B&S
599<"5<"' A-9:<&9:!' -"' =-"I-' 4<B' 6-"' 4&:' :;89:' <:' <

6 %/'/.'# 3' .*5'&4' /'#& ' 3 * /' / $ *% J *3' !&*3' &4' 4.%
6&5' /.%A ' 4& 35' *3' &" ' &4' /' / '7 $'3&' "&$' /.3' !.$'&4' /
/*!' /.' 7 $' .A 3' '/.'# 3' &$5*3.$'4 $3* $'&4'.'('%.$'
. " 5' /.' / '7 $'*3 35 5'4&$' $ *3 '.(

J- &" 45 =<: 95C-= -7 45 (--9: 7 596<9B:' 45 4<B 4&? :5=7 7-9?5B <"B =5B < A-? ;<" -7 ;<"&:4 =<"A59:!
*M33 64- 7-8>4 < 5?J=-89:' 8"B59 -" -4" -7 8: 9&<! <"B -" -" -4"@:' B5< 4 45 6<:' 95?-C5B 79-?' 45
5 459=<"B:! <"B ;8 < 45 45<B -7 45 7=55 64&A4 6<:' ;59?<"5" = : <&-"5B< &A&= 5 6<:' :-' A5=5J9< 5B
;59:-"<== ! <"B :-' ?<" < 9<A &-":' A-?J&"5B &"' 4&?' -7 J&9 4! J5<9&">! <"B B&: &">8&:45B :59C&A5:! 4< 45
7< 459:' -7 45 4&>4$J-9"' -8 4:' 64-' 4<B C-=8" 5595B -'
<AA-?;<" 45 9?<B<! ?-: -7 45?' A-??& 5B 45&9
:-":' -' B< 5 C<@:' :;5A&<=' A4<9>5

45 :4-9 :8;;= -7 A<"" -"' A<9 9&B>5 6<:' -"5 :59&-8:'
B57&A&5"A (<: 59:' -7 45 <9 -7 6<9 <:' 45 ;<"&<9B:'
J5=&5C5B 45?:5=C5:! <"B' A45<;' <:' 45 45=B ">=&:4
&"5L;59&5"A5! 45 4<B "- 5 A-?;9545"B5B 45 5L&S
>5"A&5:' -7 <"<C<=5">5?5" " - 459 ?&:7-9 8"5
-7 5C5"' >95< 59 EA-":5W85"A5 -' 45?' 6<:' 45 $&"A-"&$
;5 5"A -7 45&9H;&=- :' 45 &?5 4<B J55"' 645"'
;<"&:4 :5<?5"' D"56 45 &" 9&A<A&5:' -7 45 4<""5=
<:' 65==<:' 45 ">=&:4 45?:5=C5:' J8 :&"A5 45 A<; 895
-7 =8:4&"> 45&9 :4&;:' 7 6<9 4<B "-' =-">59 <" -AA8;<&-"' =57 45?' 4595! <"B 45&9 9<B5 4<B J55"'
=57 -' 45 8 A4! 64-' 4-8>4 &"' 95C-=! : &== 9<B5B
6& 4 45&9 ;-9 :! :8;;=&5B 45?' 6& 4 :<= 4599&">:' 7-&
45&9 7<: &">' B< :! <"B 4<B J9-8>4 -' &:J-"' 79-?' 45
<= &A 45 45?;' <"B <9 6& 4 64&A4 45 9?<B<' & :5=7
4<B J55"' 7& 5B -8 8 4-8>4 6&==&">' &"' 45 6< -7
?59A4<"B&:5 -' :8;;= 45 ;<"&<9B:' 6& 4 ?< 59&<=:' -7
6H9! 45 4<B B5A=&"5B -' 789"&:4 45?' 6& 4 ;&=- :! <"B
<9?<! -' 64-?' 4&=&;' 69-5 &"' 4&:' B&77&A8= ! 6<:'
-J=&>5B -' 95;= 4< 45 J5: :<&=-9:' 6595 4595 &A:! <"B
4< &"'<==' 45 -6 -8" 9&5:' 45 6<:' 8"<J=5 -' 7&"B ?-95
4<"' 6-' -9 4955 A-?;5 5" ?5"' 64-?' 45 A-8=B J9&J5
-9 7-9A5 -' <D5 :59C&A5 6& 4 45 9?<B< H ==' 5=:5 6<:

@ =.$". ' &' =/**! . U - =44 4! . '(3'

>-&"> k 65= 45 -;5 6-8=B "-' &"B55B <BC<"A5 <
B8A<' -7 4&:' ;9-?&:5B :8J:&B ' &== 45 ;<"&<9B:' 6595
<A 8<== ' &"' ">=<"B' J8 ' 45 4<B' J55"' ?-95 A-?;=&<" '
<J-8' 45 :8AA5::&-"!' ;&$-?&:&">' -' =5<C5' &' < ' 4&=&;@:'
B&:;-:&&-"' 5 4<B' ?<B5 ==5"' < A<9B&"<=!' 6& 4' 45
:55 -7 <" 59J89 ' &"' ;9-:;5A ' 45 8D5' -7 (<" 8<
4<B' 95=&5C5B' 4&=&;@:' ?-"5 ' B&77&A8=&5:!' <"B' <9?<@:'
4-==-65B' 9<"D:' 6595 7&==5B' <><&"' 6& 4' 795:4' 95A98& :'
Ezø45 9&"A5 4<B' -"A5 ?-95 4&:' 4&9 E@ 4-8:<"B' ;<S
"&<9B:!' 59?<":!' <=&<":!' <"B' <==--":' &"' =&&:' A<?;!'
<"B' 45 95< ' 4<C&">' 5L;=-B5B' 8;-"' 45 A<8&-"<9 '
-6":!' 45 " ' =-">59' <775A 5B' <" ' D&"B' -7 A-"A5<=?5" '
45 W8< :';7 &58;-9 <"B' 8"D&9D' 6595 49-">5B' 6& 4'
4- :' <"B' J<9>5:' 45 A<C<=9 ' 4-9:5:' 6595 : <J=5B' &"'
45 -6":' 95<B ' -' 5?J<9D' 45 9--;:' 5"A<?;5B' &"' 45
&?5B&< 5' 5"C&9-":' 9 &==59 ' : -95:!' ;=< 7-9?:!' A9< 5:!'
;&-"559:@ --=:!' 6595 <=95<B ' -"' J-<9B' 45 7=55 ' < '
" 659;!' 4-8>4' 8"<J=5 -' ;<::' =8:4&">!' 5 ' :8AA55B5B'
&"' D55;&">' 45 8 A4' &"' A45AD' 45 ' C5" 895B' -8 '
AA<:&-"<== ' &"' 79-" ' -7 8"D&9D!' J8 ' A-8=B' "-' ' =&5' 4595 '
45"' 45' A9&:&:' <A 8<== ' A<?5' 45 ' 4<B' "-' ' <' :<&=-"' 45'
5<:' ' J8 ' 45 ' 6595' <J=5' -' ;95C5" ' <9?<' 79-?' ?<D&">'
:5=7 =8 :' 64&A4!' 4<B' A-:' 4&?' :-' B5<9' -' A<; 895!H'
<"B!' 4&:' <7 59' <==' 6<:' <:' ?8A4' -9' ?-95 4<"' =&I<J5 4'
<B' <' 9&>4 ' -' 5L;5A

45' 9?<B<' 6<:' A-?&">' -' 5L5A8 5' 45' A5":895:' -7'
45' 4&?A4!' <"B' <' :;&9& 8<=' B5?-": 9< &-"' 6<:' ;95;<95B'
-' <AA-?;<" ' & ' "' <BB& &-"' -' 4&:' - 459' B&>"& &5:!' 45'
9A4J&:4-;' 5=5A ' -7 <" 59J89 ' 6<:' "<?5B' 5>< 5' 7-9'
">=<"B!' <"B' 45' 4<B' ;95;<95B' <' ;<: -9<=' =5 59' 64&A4'
HC<:' ;9&" 5B' &"' =<"B59:!' -' J5' A<99&5B' -C59' J ' <9?<'
<"B' &::85B' <' 45' ?-?5" ' -7 4&:' <99&C<=' 45' J89B5"

6 / ' '#.$ ' /.5'# 3'%.$; R' .'' $*' R !8!B' 8"5' ..! =44
$* 5'# '*3 .35'%.3. ' &' '* !&$ - 4!.'(3'

T' # ' '

-7 & 6<: <" 5L4-9 < &-" - 45 7<& 478= - 9&:5 &"
<9?: <"B 65=A-?5 45&9 B5=&C5959! <"B A-;&5: 4<B J55"
M33 <=95<B : ?8>>=5B <A9-:: 45 4<""5= <"B B&: 9&J8 5B
49-8>4 45 :5A95 <>5"A&5: -7 45 < 4-=&A ?&::&-":
45 : =5 <"B :8J: <"A5 95:5?J=5B 45 5;&: =5: -7 -=5!
45 ;9- - ;5 <"B 5L<?;=5 -7 <== :8J:5W85" :;&9& 8<=
&"A5"B&<9&5:

45 ;<"&:4 <9?:! 45 "56 5>< 5 :<&B! 6595 "- B&95A 5B <><&":4&: A-8" 9 ?5" 45&9 :&": 4<B J55"
?<" ! J8 45 95 9&J8 &-" 6<: -7<== -"= -" 45 6&AD5B
%855"! -" 45 8:89;&">4595 &A =&I<J5 4! 45 J<"5 -7
49&: 5"B-?! <"B 45 ?89B595:: -7 45 :-8=: -7 459
:8JR5A : 5"9 H ! 9<" <: 45 6<:! 4<B 7<==5"
:4-9 &" < 9-A& -7 4&: &"7<?-8: B<8>4 59 #5">5<"A5
6<: 7<==&">8;-" 459 < =<: 8&" 6<: "-6 - -C59$
k 645=? 459! <"B 45 R8: -7 45 5<9 4 C-8=B :< ! (-!
(4&: &: :45 4< --D "- -B 7-9 459 : 95"> 4! 4<
(98: 5B &" 45 ?8= & 8B5 -7 459 9&A45: <"B ;95C<&=5B &"
(459 &"&W8& &5:! J8 6<: : 98AD B-6" 8"B59 45 4<"B -7
(45 (-: &>4 (&5 &"C& 5B 45 ">=&:4 "-J&=& ! -
64-:5 :6-9B: 45 :<&B 45 B575"A5 -7 45 489A4 4<B
J55"5" 98: 5B! -A-":&B59 45 A4<9<A 59 <"B A-"B& &-"
-7 45 6-?<" 64-? 45 4<B A<==5B 45&9 -C595&>"
45 6<: J-9" &" <B8= 59 ! <" -77:;9&"> -7 &"A5: ! <
B5A=<95B J<: <9B! &"A<;<J=5 -7 =<678== :8AA55B&">
59 7< 459 4<B J55" 5LA-??8"&A< 5B <"B B5;-:5B J
45 7< 459 -7 49&: 5"B-? &59 ?- 459(: ?- 459 <"B
459 ?- 459(: :&: 59 4<B J55" 4&: A-"A8J&"5: 45 4<B
459:5=7-C59 49-6" 45 -= 489A4! ;9-7<"5B 45 :<A9<E
?!5" :! <"B -9" -B(: ;9&5: :79-?: 45 <= <9: &" 45 C59
<A -7 A5=5J9< &"> 45 4-= ? : 59&5: 45 4<B ;59$
:5A8 5B 45 < 4-=&A >5" 9 ! <"B :8;;95::5B 45 -=B
"-J&=& " <"B 4<B <BC<"A5B A489=5: <"B ;9-7=&>< 5:
-4-"-89 <"B <8 4-9& " 45 :55: -7 45 J&:4-;:
:45 4<B &": <==5B 45 :A8?: <"B 7&= 4 -7 ?<"D&"B!

&"7<?-8:!' =<:A&C&-8:!' <;-: < 5' 4595 &A:' 45' 4<B' ?<B5' P
">=<"B' <' :<"A 8<9 ' -7' < 45&: :' <"B' 95J5=:!' <"B' C<?S
;&95$=&D5' :45' 4<B' 5"9&A45B' 459:5=7' <"B' 459' :59C<" :' J ' *M33
:8AD&">' 45' J=--B' -7' 45' <77=&A 5B' < 4-=&A:' 59' A4&57' 8=
7<C-89& 5!' 64-?' :45' ?<B5' 8:5' -7' -' >9< &7 ' 459' =8: !'
4<B' ?&&9B595B' 4&:' 6&75!' &' 6<:' -' J5' ;95:8?5B!' C&4' 459'
D"-6=5B>5' <"B' A-":5" !' <"B' 4<B' <7 596<9B:' ?<B5' <6<'
6& 4' 45' 48:J<"B' -7' <"- 459' =<B ' 5 ' 4&:' ?<"!' <'
?595' =5A459-8:' ?&"&-"!' :45' 4<B' ?<B5' 459' ;9&"A&;<='
?&"&: 59' -7' : < 5
"'=<">8<>5' 64&A4'&:' J5 59'=57 '8"W8- 5B!' 45' <&@B&"<='
;9-A55B5B' -' B5:A9&J5' =&I<J5 4' ;59:-"<== '<:' 45'7-8=5:'
-7' ;9-: & 8 5:' <"B' 459' A-89 ' <:' 45' C&=5: ' -7' J9- 45=:'
45' 489A4!' 45' :<&B!'&"' ;& ' 4<B' A4<: &:5B' 459' -775"A5:'
J '5LA-??8"&A< &-"!' J8 ' :45' 4<B' B5:&":5B' A-995A &-"!'
<"B' 4-:5' C4-' 4<B' J55"' :5" ' -' J9&">' 459' -' 95;5" <"A5'
:45' 4<B' :=<&"' 6& 4' 45' :6-9B ' ""-A5" !' >-B= !'K<"B'
=5<9"5B' ?5"!' ;9&5: :' <"B' J&:4-;:'&"' ">=<"B'<"B' 95=<"B'
4<B' J55"' 9<AD5B!' -9"!' A4<&"5B!' 7<?&:45B!' J8775 5B!' <"B'
<'=<: ' J<9J<9-8:= '5L5A8 5B' ' <"B' 78=7&==&">' 45' ?5<:895'
-7' 459' &"&W8& &5:' :45' 4<B' <'=5"> 4' D&==5B' 45' <"-&" 5B'
-7' -B!' 45' <B ' (<9 !' 459' "5<95:' D&":6-?<"!' <"B' J '
=<6' 45' 9&>4 ' C"59' -7' 459' A9-6" ' 45' 5L5A8 &-"' -7'
45' 489A4@:' R8B>?5" '8;-"' 459' 4<B' J55"' =-">' B575995B!'
&"' ;<9 ' J5A<8:5' :45' 6<:' --' : 9-">' -' J5' -C59 4&@-6"' J '
459' :8JR5A :' <=-"5!' 6& 4-8 ' B<">59' -' 45' =&C5:' -7' ?<" '
"-J=5' <"B' >-B= ' ;59:-":!' &"' ;<9 ' 49-8>4' 45' =-">$:87S
759&">' <"B' :655 ' <"B' 7< 459= ' 7-9J5<9<"A5' -7' 45' A4&57'
:45;459B' -7' 45' 489A4!' 64-' 4<B' ;59:5C595B' &"' 4-;&">'
4<' :45' ?&>4 ' J5' A-"C59 5B' 79-?' 459' 5C&=' 6< :' 55&">'
4-65C59!' 4<' >5" =5"5::' 4<B' <C<&=5B' "-4&">!' 45' -= '
< 459' 4<B' <' =5"> 4' J5:-8>4 ' 45' 9&"A5:' -7' 49&: 5"S
B-?' -' <::&:' 4&?' &"' 45' A4<: &:5?5" ' -7' :-' 6&AD5B' <'
?-": 59!' 45' :A-89>5' -7' -B!' <"B' :4<?5' -7' 6-?<"D&"B

K
#

45 (-: < 4-=&A &"> 4<B <AA5; 5B 45 >=-9&-8:
A4<9>5! <"B 4&: =5>&-": 6595 <J-8 - <; ;5<9 -" 45

*M33
8=

">=&:4 :4-95:

((5! --!@ 45 <9B&"<= A-"A=8B5B (?5! --! J5&">
(-H -89 -6" 7=5:4 <"B J=--B! J&: -=&"5::4<: J55"
(;=5<:5B - A4--:5 <: 4&: =5>< 5! 7-9 45 95: -9&"> -7
(95=&>&-" <"B 45 78 895 -9B59&"> -7 45 95<=?" <:
(65== 7-9 45 &=5 -7 45 A9-6" <: 7-9 - 459 A<8:5:
(64&A4 ?< 7<== -8 J5 655" 45 489A4 <"B 45 -?$
(?-&&65<= 4 &: =-=&"5::A-"7&9?: <"B 95"56: 45
(:5" 5"A5 -7 4&: ;95B5A5::-9: <><&": =&I<J5 4 5
(B&:A4<9>5: -8 -7 -89 -< 4 -7 <==5>&<"A5 5 95$
(W8&95: -8 &" 45 J-65=: -7 49&: " -= ->59 -
(<AD"-6=5B>5 459 <: -89 -C595&>" <"B 45 5L;5A :
(<== -7 -8! <AA-9B&"> - -89 <J&=& ! - 4-=B -89$
(:5=C5: 95<B -" 45 <99&C<= -7 4&: < 4-=&A (<R5: @:
(;-659: -R-&" 45? 4&:&7 -8 B-! -89=<"B:<"B
(>--B: 6&== J5 <::895B - -8 45957-95! ? =-9B:
(<"B B5<9 A-8" 9 ?5"! <D5 ;<9 -"5 6& 4 <"- 459 &"
(4&: 4-"-89<J=5 W8<995= 7 -8 95?<&" :&==! -8 6&==
(7<== 8"B59 45 A89:5 ;9-"-8"A5B J 45 <">5= <><&":
(45 =<"B -7 (59-I -8 6&== J5 >8&= -7 -89 -6"
(98&"! <"B -7 45 J=--B -7 -89 ;5-;=5 J-C5 <==!
(7&>4 "- 7-9 < W8<995= &" 64&A4! &7 -8 B&5! -8 6&==
(&"A89 B<?"<&-" " 4&: 45 4-89 -7 69< 4 8;-"
(=&I<J5 4 <"B 459 ;<9 <D59:I 7&>4 "- <><&": 45
(:-8=: -7 -89 <"A5: -9:! <"B 45 :<=C< &-" -7 -89 6&C5:
(<"B A4&=B95" &>4 9< 459 7-9 -B@: 489A4 <"B 45
(4-"-89 -7 ">=<"B@:" D"&>4 4--B &>4 7-9 49&: ! 7-9
(95=&>&-"! <"B 7-9 45 4-= :<A9<?5" : -7 -89 7<& 4 45
(;9< 59: -7 <== 49&: &<" ;5-;=5! 45 J=--B -7 45 ?<9$
(95B J&:4-;:! 79&<9:! ;9&5: :! <"B =< ?5"! :45B &" 4<
(-89 =<"B! A9 - -B 7-9 -89 C&A -9 45 :<&" :&"
(45<C5" <95 &" 59A5B&">7-9 -8 45 ;9&5: :-" 5<9 4
(: 95 A4 7-9 4 45&9 A-":5A9< 5B 4<"B:" &>4 <"B B< 7-9

-8 89 <C&-89 4&?:5=7&:' <?-"> -8 &" 45 J=5::5B LLLC&
:<A9<?5" 5<9 "- 45 5"5? &:' 7<==&"> J 4&:'
-6" 65<D"5:: 45 ">=&:4 "< &-" 6&== 89"' 79-?' 45 *M3 '
:5 &"> :8"!<"B 7-==-6 "-' ?-95 45 J9-D5" 7-9 8"5:' -7 8=
<?5<" <"B 7&= 4 6-?<" 45 4595 &A:' <95 J8 756!
<"B -7 <== ?5" <95 ?-:' 5775?&"< 5! ?-:' B<: <9B= !
=5<:'A<;<J=5 -7 6<9' 45 <">5= -7 45 -9B 6&== :A< 59
45?' <D5 45<9' %8&' -89:5=C5:' =&D5 ?5"' '
:4<== ? :5=7 :--" J5 6& 4 -8' <A4 B<' <;;5<9:' <
5<9 -' ?5 &== '5"R- ' -89;95:5"A5 &" 45 -9B
9-?' ?' =-B>&"> &" 45 <=<A5 -7 ' 5 59@:' <'
-?5!

k 4&:'5 4 -7 ;9&=! c !
:' ' (9 / &<.

== J5&"> 48:' &" -9B59! 45 &E&"A5 -7 <9?< 95<B '
-' 5?J<9D! 45 ;<5&?<= <B?-"&&-" -' 45 ">S
=&:4 "< &-" -' A-?? &' 95<:-" ;95;<95B 7-9 A&9A8=<&-"

= B?-"&&-" -' 45 -J&=& '-7)''\+8 7(*' (*' $](' $'(' .* $!6!I
=&">=<"B! \A' J' <9B&"<= ==5"!' 3')*'\+'(*'$ (7'(' +' +.* ' =
*M33' :!)7)' 45 <J:9<A' &<' -"B5 B5 =&C<95I' ?5 4< 5"C&<B-'
45 5L '>&C5:' J8'<755J=5&?;95::&-" B5 =&-9"< 8" B&:A89:-' 'B5A=<9<A&Z"
-7 45 C&98=5"A5 -7 ==5"@:'=<">8<>5' 5"=5">8< ">=5:< W85 4<A-?;85:-'
'&:' -'J5 95>95 5B 4<' <9?<!64- 5=B&A4-' =<" -'Y 5:5 7&"!' ;<9< W85
D"56' 64<' =&I<J5 4@:' A4<9<A 59 :5 5:<?;5 ' :5 ;8J=&W85 ;-9 -B-'
&5<==' 6<:!' :4-8=B 4<C5 :<"A&-"5B 5= 5 "-' <= &5?;-'B5=<&"C<:&-" M'
&:' ;8J=&A<&-"' 5 4<B ?&:>&C&">:' :5 4<A5 9<B8A&9 ;<9< 5" 5"B59=-' '
<:' -' 45 ;9-J<J=5 A-"B8A' -7 45 C59 :& 48J&5:5 <=>-' W85 W8& <9 g
<4-=&A:!' <"B 45 &?<>&"5B 4<' ;-"59! '=85>-' :5 B<9Y Y'=<' 5:<?;<
==5"@:'<8 4-9& '6-8=B'A<99'65&>4' A-"=<' 7-9?<' B5 &?' J<"B-' J95C5 '
6& 4' 45? A-?;5"B&-:-' W85 A-?;9545"B<' 5" '
:8J:<"A&<'=-:' A<J-:' ;9&"A&;<=5:' B5=
Y 8' =-' W85 -A<!@ 45 :<&B!' Y'=<' B&A4-' B&:A89:-' A-?-' =-' <A859B<' 5=
#-!' W85 #' (<>& ?<"B<:5=5' B5 Y'=<' ?&:?' =<"-_ =<' <8B<B5=A8<=<::&
5" 9<B<' B5=;95 5L -' B5' =<' 957-9?<' ;<9<5:5' ;8"' -' ;9&"A&;<=5:' B5=
B5' =<' 95=&>&-" 'B5' =<' C5"&B<B5= <9S B5 =<' 95=&S
B&"<= B5 ">=< 599<' =<" -' A-" <8A$ >&-" A-?-' B5' =<:' B5?<:' A-:<:' ;-=&$
-9&B<B' <;-: Z=&A<' Y' <J:-=C59=-:' ' &A<:' 5" &5"B-' :59Y ?8' ;9-C5A4-:<
A-?;-"59'=<:' A-:<:' W85 Y'5:-' -A<"! ;-9'=<' <8A -9&B<B' W85' &5"5' 5" 95' =-:'
5?Z -'=<' A85" <' W85' A-"C&5"5' ;-9' <Z=&A-:' ';-9':8' J-"B<B' :87&A&5"A&<'
=-:' 9<I-"5:' W85' -9<:' C5A5:' :5' 4<"' B-A 9&"<@_ i' 5+\+')'R' .'''8'
;=< &A<B-!' 'C59:5' W85' 8*' .'')'8* R 2' 'R' B5' (<-' =44'4!.'(3'

<"B 45 =<: -8A45:<BB5B -45 A-?;=5 5"5::-7 45
7=55 &" 45 <>8:! 45 8D5-7 (5B&"< &B-"&<:<&=5B
M33 79-?& :J-" -" 45 &7$ D'7$ -7 (< 45 "-9 459= J9551 5 64&A4 ;95C<&=: -" 45 A-<: -7 -9 8><= 6<:
8"8:8<== :9-"> 45 <==5-":: <"B&"> 4&>4 -8 -7
45 6< 59! <"B A<99 &"> :?<== A<"C<: &" ;9-;-9 &-" -
45&9 :&I5! 6-9D5B J<B= -6&"B6<9B 45 6595 4955
655D: &" 95<A4&"> &"&: 5995! 64595 45 6&"B 4<C&"> 795:45"5B -<><=5! 45 6595 :A< 595B! :-?5 :<"B&"> -8 -:5<! :-?5 &" - 45 < -7 &:A< 45&9 -9B59:! &" 45 5C5" -7 :8A4 <5<:8<= ! 4<B J55" - ?<D5 7-9
599-= 45 6&"B :4&7 &"> :8BB5"= ! - 45 65: ! 4-:5
4< 4<B >-"5&" - 45 < A-8=B "- &?? 5B&< 5= 95<A4
& ! <"B 6595 B9&C5" &" - <" <"B59 45 -77&A59:! 4-6S
5C59! 6595! -" 45 64--5! 65== :< &:7&5B 6& 4 45 W8<=& &5:
64&A4 45 :4&;: 4<B B&:;=< 5B ?<: -9 6-4<B J55"
:;98">! <756 <9B:<"B J-6:;9& :4<B J55" A<99&5B<6< 'EE
J8 J5 -"B=-::-7 &?5 4595 4<B J55" "-:59&-8:B<?<>5
45 65< 459 ?-B59< &">! 45 7=55 6<: <><&" A-==5A 5B
&" 45 < -7 599-= J 45 < 4$&< 4 -7 8= == 95S
;<&9: 6595 A-?;=5 5B J 45 && 4$5&:! <"B 45 "5L
B< ! 45 5 4 5<"B!E! 45 9?<B< --D =5<C5 -7 ;<&"
7-9 45 =<: &?5

45 :A5"5 <: 45 7=55 ;<::5B -8 -7 45 4<&J-89 ?8:
4<C5 J55" :&">8=<9= J5<8 &78= 6<: < 95<A459-8:
&" 59C<= -7 95<= :8??59 45 5<9= :8" 6<:=&>4 &">
45 =-"> A4<&" -7 45 <==&A&<" ?-8" <&":! ?<9D&"> 6& 4
:4<B-6: 45 A=57 B57&=5:! <"B :4&"&"> :-7= -" 45
64& 5 6<==:<"B C&"5 <9B: -7 -98"< 45 6&"B 6<:
=&>4 ! <"B 7<==&"> -6<9B: < A<=?" 45 >95< ><==5-":
B9&7 5B :=-6= E6& 4 45 &B5 -" 45 ;89;=5 6< 59! 45
=-"> : 95<?59: 9<&=&"> 79-?& 45 98AD:! 45 95B A9-::5:!
45 5?J=5?-7 45 A98:<B5! :456&"> J9&>4 8;-" 45
4<">&"> :<&=: 45 798& J-< : 6595 J9&">&"> -77 45
=<: 795:4 :8;;=&5:! <"B 45 ;&&?<A5: 4<: 5"&"> - 45

:4&;:' 6& 4' 45' =<:' =-& 5959:' -"' :4-95' 8' -7' 4&9 ' '
4-8:<"B' ?5"' 64-' 4<' ?-9"&">' : --B' 8;-"' 45' B5AD:'
-7' 45' ;9-8B' 9?<B<!' 65" ' 4-8:<"B' <"B' ?-95' 6595'
"5C59' <><&"' -' :55' 45' 4&==:' -7' ;<&"' 7' 45' 95?"<"'
64-' &"' 6-' :4-9' ?-" 4:' A95;' 4<AD' 9<>>5B' <"B' -9"!'
<=' J8' <' 756' 48"B95B' 95 89"5B' -"=' -' B&5
45' ;<"&<9B:!' 4-8>4' <' >95<' ;5-;=5!' 6595' 8:8<==' '
-C59' A-":A&-8:' -7' 45&9' >95<"5::!' <"B' J-<:5B' --'=-8B='
-7' 45&9' 7<?5' <"B' ;9-65::" J8' <?-">' 45' :-=B&59:' <"B'
:<&=-9:' -7' 45' B--?5B' 5L;5B&&-"' <><&":' ">=<"B!' 45'
"<&-"<=' C<&">=-9' 6<:' :&">8=<9=' :&=5" ' 45' 6595' 45'
7=-659' -7' 45' A-8" 9!' A8==5B' <"B' A4-:5"' -C59' 45'5" &95'
5"&":8=<!' <"B' 45' 6595' >-&">' 6& 4' <?-B5:' "-J&=&'
P;-"' <' :59C&A5' 64&A4' 45' D"56' -' J5' B<">59-8:!' J8'
"B&&A4' 45' J5=&5C5B' -' J5';5A8=&<9=' :<A95B' C59' -"5!'
5<?<"!' -77&A59!' <"B':-=B&59!' 4<B' A-"75::5B' <"B' A-??8"&S
A< 5B' J57-95' 45' #@H5"' -"' J-<9B' <?J=&">!' :65<9&">!'
;9-7<"5'=<">8<>5'-7'<=' D&"B:' 4<B' J55"' ;595?;-9&='7-9S
J&BB5"' 9&C< 5' W8<995=:' <"B' B&77595"A5:' 4<B' J55"'
77&<B5'8;'-9' :8:;5"B5B' 45'=--:5'6-?5"' 64-' <AA-?S
;<"&5B' ;<"&:4' <9?&5:!' <"B' :-?5&?5:' ;<"&:4' :4&;:' -'
5<!' 4<B' J55"' -9B595B' <6< !' <"B' "-' 8"A=5<"' 4&">' -9'
59:-"' ;59?& 5B' -' B57&=5' 45' 9?<B<"' <"B' &"' 5C59'
#5::5=!' <"B' &"' 45' 64-=5' 7=55 !' 45' :9&A 5:' -9B59' 6<:'
;95:A9&J5B' <"B' -J:59C5B' (5B&"<' &B-"&<' =5B' 45' 6<
45' <"' (<9&"!' :4-6&">' =&>4 :' <' "&>4 !' <"B' 7&9&">'
>8":' 645"' 45' 65< 459' 6<:' 4<I' (-8" @:' <' 6<:'
-' J5' 45' "5L' ;=<A5' -7' 95"B5IC-8:' &7' 45' 6595' <><&"'
5;<9< 5B H
"' 45' 7&9:' 5C5"&">' 45' 6&"B' B9-;;5B' -' <' A<=?'
45' ?-9"&">' <7 59!' 45' ? 4$5?9B!' <' 7<&9' 795:4' J9555I5'
<?5' 8;' 79-?' 45' :-8 4' <"B' :-8 4$65:" 45' :4&;:' 7<"'
7=-6&">=' J57-95'& ' <"B'&"' 6-'B<:' <"B' "&>4 :' 45' 4<B

K 9B59:' -' 45' 7=55' -7' ;<&"' 4' 45' 8&5' -7' (5B&"<' &B-"&< _ = 44'
!A*. $!3'

QQ 01 c V

A9- : :5B X&5 J< ! <"B 6595 -77 P :4<" 45 7<: 5: -7 45 ;&" "<A5: 6<: B&: ;< A45B 79%? 45 "A5 - <9 ? <! 6& 4 < =5 59 J&BB&"> 4& ? 5L ;5A 45 8D5@: &? ? 5B&< 5 A- ?&"> K 8 45 4<B "- 6 5" 595B 45 =< & 8B5 -7 45 : -9 ? : 64&A4 49-8>4 45 64-=5 :5<:-" 4<B 9<>5B 9-8"B 45 ">=&:4 :4-95 45 :<?5 "&>4 < : -8 4$65: ><=5 -C59S --D 45 ? 45 =< $ -! " - B<9&"> - 98" 789 459 45 7-89 ><==5 : 8"<J=5 - D55 ; 45 :5< 6595 B9&C5" &" 8; -" 45 95"A4 A-<: ! <"B 695AD5B 45 <" < [<! < ><==5-" -7 5&>4 48"B95B -":! 65" B-6"! A<99 &"> 6& 4 459 "&"5 :5<?5"! 4955 48"B95B : -=B&59:! <"B 7&7 4-8:<"B B8A< : &" >-=B H 45 65< 459 6<: J5=&5C5B - J5 8"B59 45 ; 5A8=&<9 W<95 -7 -B! <"B 4&: 7&9: ? &:7-9S 8"5 6<: -7 5C&= - ?5" 7&&9 45 78 895 45 : -9 ? =<: 5B 6 - B< :! <"B 45" 45 :D A=5<95B! <"B <><&" >< 459&"> &" - -9B59 45 ;9-A55B5B -" 45&9 6< " 45 = 4$ 5= 4 45 6595 &" 45 ?-8 4 -7 45 4<""5= @ B< J95<D - " 45 ?-9"&"> -7 45 <- 4$R- 4 45 &I<9B 6<: 8"B59 45&9 =55! <"B <" ">=&:4 7&:4&">$J-< 6<: 4<">&"> "5<9 45?! A-8" &"> 45&9 "8?J59: 45 ><C5 A4<:5" J8 45 J-< :4- <6< B-6" 6&"B <"B B&:<;S ;5<95B 45 A<; 895B <"- 459 <" 4-89 -9 6 - =< 59! 79-? 64&A4 45 =5<9" 45 ">=&:4 7=55 6<: &" = S ?-8 4! <"B (5B&"< &B-"&< A<==5B < A-8"A&= -7 6<9! - A-":&B59 645 459 45 :4-8=B >- &"! <"B 7<== 8; -" & 64&=5 < <"A4-9 4&=&;@: -9B59:! 4-65C59! 6595 ;59S 5?; -9 4< 45 :4-8=B 89" "5& 459 9&>4 "-9 =57 ! <"B ?<D5 : 9<&>4 7-9 (<9>< 5 9-<B:<"B! <9?< 45 8D5 6<: 8"5" 59;9&:&">! <"B A-":A&-8:= 8"5W8<= - 4&: 6-9D <"B <=95<B J5"B&"> 8"B59 4&: 95: ; -":&J&=& &5: 45 45:& < 5B - <BB - 45?

E @ <9 <: B5= 8W85 B5 (5B&"<! 1M 8=&- @_ = 44 4! . '(3' K @ 5=<A&Z" B5 =- :8AA5B&B- Y =< 5<= 9?<B<! 5 A ! B<B< ; -9 5= -"S <B-9 5B9- -A- <=B59Z" @_ = 44

4! . '(3' @ 5><R-: B5 (<9 &599<@ / 45" 95759 <><&" - 4&: :&">8=<9= &" 595: &">" "<99< &C5!& $6&=45 "" B5 45 & =5 - '8) *(' H

<B' 45' B5A&B5B' - 4596&:5' &' 6-8=B' 4<C5' ?<B5' "-' K
B&77595"A5!' 7-9' 45' -;;-9 8"& ' 6<:' "-' <==-65B' 4&?'
-">' J57-95' 45' ;<"&<9B:' :<6' 45' &I<9B' 45 ' 4<B' *M33 8=
45?:5=C5:' J55"' :55"!' <"B' -"' 45' 5C5"&">' -7' 45' = 4$'
5= 4!' 45' J5<A-":' <=-">' 45' A-<:' 4<B' -=B' ">=<"B' 4<'
45' 4-89' -7'& :' 9&<=' 6<:' A-?5

-' 45' :4&;:' <' = ?-8 4' 45' "56:' 6<:' <:' <' ?5::<>5'
-H :<=C<&-"' ' 49&7' <"B' :4-9' 9<&-":!' J' >--B'
?<"<>5?5" !' A-" 5" 5B' A<95!' <"B' =<C&:4' 8:5' -7' ;9&C< 5'
?5<":!' 4595' 6<:' :&=' -"5' 655D@:' ;9-C&:&-":' &"' 45'
?<><I&"5:!' 6& 4' ;-6B59' <"B' :4-' 7-9' -"5' B<@:' :4<9;'
7&>4 &">!' <AA-9B&">' -' ">=&:4' "-&-":' -7' 64<' 7&>4 &">'
-8>4' -' J5' 45' 4<B' -' ?55' 45' 5"5? !' <:' &' 6595!'
C&4 -"5' <9?' J<"B<>5B' J' 45&9' -6"' -C595&>"' J8'
<=' 6<" :!' <=' B&7& &A8=&5:!' 6595' 7-9>- 5"' &"' 45' D"-6'
=5B>5' 4<' 45' 6<:' A-?5!' <"B' 4<' 45' A-8=B' >9<;:=5'
C&4 4&?!' J57-95' 45' 6595' B&::-=C5B' J' : <9C<&-"

45' 6<9"&">' =&>4' 7=56' -"' -' -"B-"!' :6&7' ?5:S
:5">59:' ><=-;&">' J54&"B' &' 4595' 6<:' :<BB=&">' <"B'
<9?&">' &"' C&=<>5' <"B' -6"!' <"B' ?8:59:' 7=-AD&">' -'
45&9' ;-:' :' - <=' ">=<"B' 7-9>-' &:' B&7= 595"A5' -7'
A955B:!' <"B' D"56' "-4&">' J8' 4<' 45' &"C<B59' 6<:'
<' 45' B--9' "5' 4&">' 6<:' 6<" &">!' <:-=B&59' -' <D5'
45' :8;95?5' A-??<"B' J8' 45' %855"' 7-8"B' 64<':45'
455B5B!' 7-8"B' &' &"' 45' ;59:-"' &"' 64-?' &"' 459' 5 5:!'
4-6& 4:<"B&">' 4&:' -7&5"A5:' &"' 45' -6' -8" 9&5:!' <=='
5LA5=5"A&5:' 6595' :&=' A-?J&"5B_459' -6"' 5&A5:59'
#-9:5';;-&" ?5"' A-8=B' "-' ;-::&J=' 4<C5' J55"' ?<B5'
J8' 5C5"' 5&A5:59' 6<:' =&7 5B' &" -' <D&"B' -7' 459-' J' 45'
5LA& 5?5"' -7' 45' ?-?5"' 5' 6<:' "-' <A-6<9B!' <"B'
4-' 5" &95=' <7--=' &=J89' 4<B' J55"' A4-:5"' <:' 45'
;=<A5' 64595' 45' 7-9A5' 6<:' -' <::5?J=5' 64&A4' 6<:' &"S
5"B5B' -' A-C59' -"B-"' ' 6<:' 45' =-65:' :;-' 64595'
45' 4<?5:' A-8=B' J5' 5<:&=' A9-::5B!' <"B' &' 6<:' &?;-:S
:&J=5' ;':<' -"' 64&A4' :&B5' -7' 45' 9&C59' 45' 5"5?' ?&>4

A4--:5' -' <; ;9-<A4' 5&A5: 59' 7=56' <' -"A5' -' 4&:' ;-:' 4595!' <"B' :-' 7<9' 45' 4<B' 78=7&==5B' 4&:' B8 ' 4<' 45' 4<B' :&L 55"' 4-8:<"B' ?5"' 6& 4' 4&?' <' &=J89 !' 6& 4' 4&9 ' 4-8:<"B'7-9?&">'9<;&B=' &"' 4&:' 95<9' -8' -7' 45' ?8: 59:' -7' 45' ?&B=<"B' A-8" &5:!' J57-95' <9?<' A-8=B' 4<C5' <BS C<"A5B!' 8"B59' 45' ?-:' 7<C-89<J=5' A&9A8?: <"A5:!' 6& 4&"' <' B< @:' ?<&@A4' -7' -"B-"

(5<"64&=5!' -"' 45' "&>4' -7' 45' &= 4$5= 4!' 64&=5' 45' 9?<B<' 6<:' : &==' :-?5' =5<>85:' -' 45' :-8 4' -7' 45' &I<9B!' 45' 6&"B' J=-6&">'795:4' &" -' = ?-8 4' -8"B!' 45' %855"@:' :4&;:' <"B' <' 756' -7' 45' ;9&C< 559:' 6A&@5 6<9;5B' -8' J54&"B' 45' :45= 59' -7' (-8"' B>5A-?J5' ==' 4<"B:' 65"' ?599&=' -' 6-9D' C5::5=' <7 59' C5::5=' 6<:' J9-8>4' -' ?--9&">:' J54&"B' <?' =5<B!' :-' ;=<A5B' 4<' 45' A-8=B' 75 A4' A=5<9' -' 45' :5<' <"B' J' <89B<' ?-9"&">!' 645"' 45' ;<"&<9B:' 6595' 7&9:' :&>4&">' =&5' A-<:' -7' -9"6<==!' 7-9' :<&=' 6595' =&">'95<B' 7-9' <A&-&# 8"B59' 45' 45<B=<"B

45' B<' 6-95' -"' "--"' ;<::5B' <"B' "-4&">'4<B' J55"' :55"' ' =5"> 4!' -6<9B:' 4955' &"' 45' <7 59"--"!' 45' =--D$-8' ?5"' -"' 45' 4&==' 95;-9 5B' <' =&"5' -7' :<&=:' -"' 45

H 45' 9?<B<' 95<A45B' <=<&:' -"' <89B<! 45' <, 4' x 8>' 2' <B' <==' >-"5' /65=' <9?<' ?&>=&! 6& 4' C59' >95<' 5L59 &-"!' 4<C5' A9-::5B' -"' 45' 7-==-6&">' 5B"5:B<! 45' F*:' x 8>' *+' &:' -6"' =5 59:' ;9-C5' 4<' 45' A-8=B' "-' 4<C5' J55"' 95<B' :--"59' &:' ;=<"' 6<:' -' =<"B' <' (<9>< 5!' <"B' 5C5"' &7' 45' 6<:' 8"S -;;-:5B' 4955' B<:' <' =5<:' 6-8=B' 4<C5' J55"' 95W8&95B' -' ?-C5' 4&:' <9?' 6& 4&"' 4&9 ' ?&=5:' -7' -"B-"' "' 45' Œ24-7' 8=' x 8>' M! 5&S A5: 59' 4<B' 5"' 4-8:<"B' ?5"' 6& 4' 4&?' <' &=J89 ' 4595' 6595' "&"5' ' 4-8:<"B' -"' 45' :<?5' B<' &"' -"S B-"!' <"B' 45' ?8: 59:' -7' 45' ?&B=<"B' A-8" &5:!' 5C5"' &7' 45' ?<9A45B' "-' ?-95' 4<"' 7&7 55"' ?&=5:' <' B<! ?8: 4<C5' R-&"5B' 4&?' <' =< 5: !' 4<B' 45&9' ;95:5"A5' J55"' 95W8&95B!' J57-95' 45' 1 4$&1 4'-7' 8>8: _ 55' 5&A5: 59E:' =5 59:' -' <=:&">4<?' 79-?' 45' A<?;' =44' 5*. $!3' 9-C&:&-":' 4<B' J55"' <:' =& =5' < 5"B5B' -' 7-9' -"5' :59C&A5' <:' 45' -459' 45"' 7-89' 4-8:<"B' ::5L' ?5"' A<?5' &"' -"' 45' .24'-7' 8=! <7 59' <4-' ?<9A4' -7' 65" ' ?&=5:!' 4595' 6<:' "5& 459' <' J<995=' -7' J559' "-9' <' =-<7' -7' J95<B' 7-9' 45?' -"B-"' 4<;&=' 5L59 5B' &:5=7!' <"B':5" ': -95:'B-6"' 45' 9&C59"' 45' :;&9&' -7' 45' ?5"' B5:59C5B' J5 59' 95< ?5" ' <?&:45B' <:' 45' 6595!' 45' :<&B' 45' 6-8=B' <J&B5' ?-95' 48">59' 4<"' 4<' -' :59C5' 459' (<S R5: ' <"B' 45' A-8" 9 C<P !3 $ $ ' '8!(7 '.' 8=' .2$ 8>' M

5: 59<' 4-9&I-"!' 45' 6-' 6&">:' J5&">' 7&9: ' C&:&J=5!' 64&A4
595' >9<B8<== ' :55"' -' 8"& 5' <:' 45' A5" 95' 9-:5' -C59' $$$$$
45' 9&?'-7' 45' :5<' "' 45 ' :65; '&"' <' J9-<B' A95:A5" !' R8& H-1!H+
:=-6=!' 7-9' 45' <&9' 6<:' =&>4 "' <"B' <:' 45' 48==:' :4565B'
A=5<9!' & ' 6<:' :55"' 4<' &K5;-9' 4<B' "-' 5L<>>59< 5B' 45'
&&8?J59:' :<&B' -' J5' A-?&">' ' 48"B95B' <"B' 7&7 !' =<9>5'
<"B' :?<==!' 6595' A-8" 5B' <"B' 95;-9 5B' -' -9B' -6<9B'
<'756': 9<' 5"B59:' J-8"B' 7-9' =<"B59:' 4<C&">' :-8>4'
45' A-?;<" ' <"B' 45' ;9-5A &-"' -7' 45' ?&>4 ' 5:A-9
45' ">=&:4' :4&;:' <' -"A5' 65&>45B!' J8' :4565B' 45?S
:5=C5:' <:' =& =5' <:' 45 ' A-8=B' 45' 5C5"&">' 6<:' A=-8B !
&4' 45' 6&"B' 4<">&">' -' 45' =<"B' ' 6<:' >9-6&">'
B8:D' 645"' 45' 9?<B<'-;5"5B' = ?-8 4!' <"B' 45"' 7-9'
45' 7&9: ' &?5' (5B&"<' &B-"&<' ;59A5&C5B' 4<' -6<9B'
<:' ;&@5;<95B' 7-9' 4&?!' <"B' 4<' &7' 45' 6&:45B' &' 45' A-8=B'
4-' 5" 59' 45' -8"B' 6& 4-8' <"' <A &-"' 4595' 6<:' "-'
r 4' 5"-8>4' 7-9' 4&?' -' ?5<:895' 4&:' 5"5? @:' : 95"> 4'
&H5:<6':<&=:' ;<::&">' A-" &"8<==' J5 655"' 4&:' 7=55' <"B'
45' =<"B!' <"B' C5::5=:' <AD&">' <"B' ?<"A58C9&">' J8'
-"7&B5"' &"' 4&:' -6"' -C59;-659&">' 7-9A5!' 45' :5"' 8;'
:&>"<=:' -' =&5$ -' 7-9' 45' "&>4 !' <"B' -' ;95;<95' 7-9' <'
>5"59<' <A &-"' <' B< J95<D
J-8' 6-' -@A=-AD!' 45' ?--"' 9-:5' 6& 4' <' A=5<9' :D _
H' >&JJ-8:' ?--"!' "-' ?-95' 4<"' <' 4<=7' A&9A=5!' J8' J'
45' =&>4' -7' &' 45' ;<"&<9B:' ;59A5&C5B' 4<' :&L ' -9'
5C5" ' :4&;:' 4<B' >PB5B' -8' J54&"B' 45?!' <"B' 6595'
-C59&">' <' 45&9' 95<9'R8:' -8' -7' A<""-"' :4-
45' B<6"' 6<:' : &==!' J8' -6<9B:' 5&>4' -@A=-AD' =&5' 8-' 5 ?'
5515' 795:45"5B' 79-?' 45' 65:' 45' 9?<B<' ?<B5'
H<&=!' <"B' < 5?;5B' -' A=-:5' -' (5B&"<' &B-"&<@:' 5LS
95?5' <:-"&:4?5"!' &' :55?5B' <' 45' ;=5<:895' -7' 45'
XX">=&:4' -' =5<C5' 4&?' -9' <==-6!' 4&?' -' <;;9-<A4' 45?'
H:' 45' A4-:5' 45' 4&>4$-6595B!' J9-<B$J-65B' ><=S
=5-":' ?-C5B' =&D5' 4<?5:' J<9>5:' ;&=5B' 6& 4' 4<' 64&=5$
45' :4<9;' =-6' ">4:4' :<&=5B' <' -"A5!' 6-' 755' -' 45

M33 <&$F

;<"&<9B:@ -"5! <"B :4- < <6< < <: &7 J < ?<>&A &" 45 5 5 -7 45 6&"B < 6<: <: &7 < ? -B59" : 5<?7=55 6<: 5"><>5B 6& 4 < :W8<B9-" -7 45 -=B$7<:4&-"5B 4955$ B5AD59:! A4- -:&">45&9 -6"B&: <"A5 <"B 7&>4 &"> -9 "- 7&>4 &"> <: :8& 5B 45&9 A-"C5"&5"A5

45 <A &-" -;5"5B 6& 4 45 9D <=5&>4! A<99 &"> -6<9B@: 7=<>! <"B 4955 - 459 ">=&:4 :4&;:! 67=-:5 "<?5: 45 ;<"&<9B:B&B "- D"-6! 98""&"> <=-"> 45&9 5" &95 95<9 =&"5! 7&9&"> :8AA5::&C5= &" -5<A4 ><==5-" <: 45 ;<::5B! 45" 65<9&"> 9-8"B <"B 95 89"&"> -C59 45 :<?5 A-89:5 45 <" (< 5- =87=75B &" - 45 C""B <: 7<9 <: :45 A-8=B! &"C& &"> 45?- J-<9B! J8 45 ><C5 459 45&9 J9-<B:&B5: < :5A-"B &?5 <"B ;<::5B -"

: -"&:45B <"B A-"7-8"B5B <:65== J 45 ?<"-58C9&"> <: J 45 9<;&B& -7 45 7&95! 45 ;<"&:4 -77&A59: A-8=B "- 9578:5 45&9 <B?&9< &-" 45 D"56 4< 45 6595 &"759&-9 < :5<! J8 4-6 &"759&-9 45 4<B "- 95<=&:5B$ 45 ">=&:4 6595 7&9&"> 7-89 :4- : - -"5! <"B 6& 4 < 795:4 J955I5 5C5" 45 ><==5<::5: A-8=B "- -8A4 45?K 8A4 <9 &==59 ;9<A &A5 <"B :4&;: :- 4<"B=5B 4<B "5C59 J55" :55" H =-"I-B< 5 C< &" 45 48>5 < < < E 5?; 5B -A9-:: 45 9D <=5&>4 -6<9B D5; <6< <: &7 - ?55 4&?! J8 9<" J ! <><&" 7&95B &" - 45 <" (< 5-! 64&A4 6<: = &"> 45<B - 6&"B 8"<J=5 - ?-C5i <"B :65; -" 8; -" 4&: 6<

45 95: -7 45 ">=&:4 :4&;: 6595 "-6 5"><>5B -" 45 :<?5 A-"B& &-": 45 <A &-" A-" &"85B 4&@-8>4 45 64-=5 7-95"--"! 45 ;<"&<9B: ?<D&"> 577-9 : - A=-:5 <"B <=6< : 7<&4"> -":A&-8: -7 45&9 B&:<BC<" <>5! 45 : &== 7-8>4 J9<C5= @ - 7<9 <: 65 :55!@ 69-5 9<D5i @ 45 ?5<" - :5== 45&9 =&C5: 6& 4 J=-6:@H 8 45

K@ (8 J&5" <9 &==<B-: ?<9&"<S K 9<D5 - -9B 5"9 5 ?-8J B-: C5=5<B-:@_ *9 2 F 8= .* _ =44 5*. $!3 1

4<B J55"' 7=899&5B' <"B' :89;9&:5B' 5&"-9 -' =556<9B!' <"B' =5<"&">' -C59' -' 45' 6&"B!' 45&9' :4- :' 4<B' 7=- C"' 4&>4!' $$$$$ <"B 4<B' :A<9A5=' -8A45B' 45' ">=&:4' :4&;:' <' <==!' 64&=5' 45' 4<B' 45?:5=C5:' :877595B' A-":&B59<J=' 45' &:S A< <"' 7=<>$:4&;!' 45' <"' 8<"!' 4<B' 459' "<&I5"$&"<:' :4-' 49-8>4' &"' 6-' ;=<A5:!' ?<"' :;<9:' A<99&5B' <6< !' 45' A<; <&"' 6-8"B5B!' <"B' 7&7 55"' ?5"' D&==5B' W85"B-' 4<B' :;5A&<==' B&: &">8&:45B' 4&?:5=7!' J5&">' ;95:5"' 64595C59' 4`B<">59' 6<:'>95< 5: !' B9&C&">' J<AD' &" -' <A &-"' C5::5=:' HC4&A4' 6595' &"A=&"5B' -' 7=&"A4" J8' <:' 45' 6&"B' 45=B' b&5& 459' 45' "-9' <" ' -"5 A-8=B' A4<">5' 45' 7-9 8"5:' -7' 45' =< !' -9' 5"<J=5' 45' ;<"&<9B:' -' 489' <"' 5"5?' 64-?' 45' A-8=B' "-' -8A4' <"B' 45' 95:' -7' 45' ">=&:4' 7=55' A-?&">' -8' -7' 45' 4<9J-89!' (5B&"<' &B-"&<:&>"<==5B' -' &"<D5' :<&=' 8;' 4<""5=!' (<9&"51' B5' 5A<=B5' A-C59&">' 45' 95<9' 6&4' 45' :W8<B9-"' -7' &:A<

45' 6&"B' 6<:' "-6' 9&:&">!' <"B' ;9-?&:5B' <' :W8<==' 5C5"&">' '7<:' J-<' 6<:' :5" ' -"' 6&4' =5 59:' -' -9B' 5"9' 5 ?-89' 95;-9&">' ;9->95::-' 7<9!' <"B' J&BB&">' &?' ;95;<95&"' 45' -6":' "'5L;95::65" ' -' -"B-"!' 5>>&">'7-9' <"' &": <" ' :8;;=' -7' <? ?8"& &-"' <"B' 64&=5' 9<D5' 65" ' &"' ;89:8&' -7' <' B5 <A4?5" ' 64&A4' <;;5<95B' -' J5' ;<9 5B' 79-?' 45' ?<&"' ;<"&:4' 7=55!' <"B' ;9-C5B' H"=' -' J5' 45' =5?&:4' 9<B59:!' -6<9B' 48">' 8;-"' 5A<=B5!' :;<9&">' 4&:' ;-6B59' J8' 7&9&">' <"' -AA<:&-"<=' H4-' -' ;95C5" ' 45' 5"5?' 79-?' 95A-C59&">' 79-?' 45&9' -"78:&-"

45' ?&:7-9 8"5:' -7' 45' 7&9:' B<' 6595" "-' 5' -C59

79<&B' -' :;&5<B' =5:' <" ' -7' 45?' :4-8=B' J5' A8' -7=H 45' B&77595" ' :W8<B9-":' 48BB=5B' ->5 459' ' 9-==&">' H5<' A<?5' 8;' 79-?' 45' 65:!' <"B' <:' 5C5"&">' 75==!' 45' <;&<"<!' -7' 45' "B<=8:&<"' B&C&:&-"!' <'><==5-"' -7' 5 ' -":!' A<99 &">' 45' 7=<>' -7' 5B9-' B5' #<=B5I!' 7-8=5B' 45' <" <' < <=&"<!' <"B' J9-D5' 459' J-6:;9&' 45' 7-95: < :

; <9 5B <"B 45 7-95?<: 75== -C59J-<9B! <"B 45 :4&;!
$$$$$$ 4<?;595B J 45 695AD! B9-;;5B J54&"B -"
&& H&$?& B&: 95::>8"! <"B 6- -7 45 ><==5<::5: A<?5 -
4&: <::&: <"A5! <"B 9&5B - <D5 4&?& "" -6! J8 45
6<C5: 6595 98""&"> :-4&>4 4< 45 A<J=5 J9-D5 -"
5B9- 6<: 45 -"= 4&>4 -77&A59 &"" 45 7=55 64- 6": 65== <AW8<&" 5B 6& 4 45 4<"5= 5 6<: 4&?:5=7 -7 ?-95 &?;-9 <"A5 4<"" 4&: :4&;! <"B 45 8D5 B&:;< A45B J-< : -J9&"> 4&?-77 6& 4 4&: A956 8 45 6-8=B "- =5<C5 4&: A4<9>5! <"B 45 6<: =57 -4&: 7< 5 6<: <=?-: B<9D -6<9B J5=&5C&"> 45 695AD -J5 B5:59 5B! B&B "- : < 7-9 459! <"B 65" -"&"; 89:8& - "B-" ; 9&C< 559 48"> J54&"B < 459 :&B5 &== ?&B"&>4 ! 5LS A4<">&"> -AA<:&-"<= :4- : 6& 4 459! <"B :-?5&?5: 45<9&"> C-&A5: A<==&">! J8 (45 6&"B <"B :5< J5&"> C59 >95< !@ 45 6-9B: A-8=B "- J5 B&:&">8&:45B 9<D5 95 89"&"> &&@-?4&: A4<:5! A<?5 8; 6& 4 459&"" 45 ?-9"&"> 45 :98AD 459 7=<>! <"B 45 --D 45 6& 4 4&?- -9J< ! 64595 45 =57 459 -45 A<95 -7 45 9&L4<?7&:459?5"! <"B 4&?:5=7 4<: 5"5B <7 59 45 B?&9<=! A<99 &"> -"6& 4 4&?B5 #<=B5I <"B 45 - 459 -77&A59: 45 ;9&I5 ;9-C5B -7 8"5L;5A 5B C<=85 (<" A<:D: -7 95<=: 6595 7-8"B &"" 459! <"B &"7&"& 5= ?-95 &?;-9 <"! :-?5 -": -7>8";-6B59! 6& 4 64&A4 45 -5J8AD! 45 :6&7 5: 9<6=59 &"" 45 4<9J-89! 7=56 &"" ;89:8& -7 45 7=55 H

E 45 ;9&:-"59: /6595 < :59&-8: 5?J<99<::?5"-45 -9J<?<>&:S 9<5: -:4<9;<"<AA-8"6<: =&D5= -J5 B5?<"B5B -7 45 ;9-;59 7-8"B &"" 459! <"B &"7&"& 5= ?-95 &?;-9 <"! :-?5 -": -7>8";-6B59! 6& 4 64&A4 45 -5J8AD! 45 :6&7 5: 9<6=59 &"" 45 4<9J-89! 7=56 &"" ;89:8& -7 45 7=55 H

A-: -7 D55;&"> 45?6": >95< ! 45 ;59&= >95< ! 45 B&:A-"5" -7 45 A-8" 9 ;5-;=5 >95< 5: -7 <=!@ <"B 4<B 45 9-8>4 <"B 95<B 5C-":4&95 A=-6": <A 5B -"45&9-6"R8B>?5"! 45 6-8=B 4<C5: -=C5B 45 B&77&A8= 5L;5B&-8:= <7 59 45&9-6"7<:4&-"" 9&:-"59: -7 6<9 64- A-8=B ;< "= 9<": -?! 7-8"B "-64595 C59 >5" =5 95< ?5"&"" 45 :&L55" P A5" 8&R

6-' 4-89:' <7 59' 45' <AA&B5" ' -' 45' "B<=8:&<" ' <;&S
<"<!' <"- 459' B&:<: 59' -C59 --D' 45' ><==5-"' -7' W85"B-'
5' 6<:' 4&?:5=7'<;;<95" = '"-'-"'4-<9B'<' 45' &?5' 45' *M33
-77&A59:!' &?;<&5" ' <"B' &99&<5B'<' 45' 95:8=:' -7' 45' 9
<A&-"!' 6595' W8<995==&">' 6&4' 45?:5=C5:' <"B' -"5'
<"- 459' 45' A<; <&"': 98AD' 45' ?<: 59' >8""59' 6&4'<
:&AD' 45' ?<: 59' >8""59!' 64-' 6<:' <' 59?<"!' 65" '
J5=-6'&"'<9<>5!' 498:'<J89"&">'=&": -AD'&" -'<;-6B59$
J<995=!' <"B' :;98">' 49-8>4'<;-9 $4--5'&" -' 45' :5<'
45' B5AD' 6<:' J=-6"' -77' 79-?' :5?' -' :59" ' 6-'
48"B95B' :5<?5"' <"B' :-=B&59:' 6595' :5" ' &" -' 45' <&9"
:-?5' 75==' &" -' 45' /6<59' <"B' 6595' B9-6"5B" :-?5'
:A-9A45B' -9' ?8&=<5B' B9-;;5B' J<AD' &" -' 45' 695AD'
45' :4&;!' 64&W4' 6<:' <=:-' -"5' -7' 45' =<9>5: '&"' 45' 7=55 '
<:' J8&=' :-' :9-">=' 4<' :45' :89C&C5B' 45' :4-AD' <"B'
7=-<5B!' <"B' 459' ?<: :' :&==' :--B' 45' 7=<:4' 6<:' :55" '
45' 8D5' :5" ' J-<:' -' =5<9"' 64<' 4<B' 4<;;5"5B' <"B'
-' :<C5' 45' ?5" ' 45' -77&A59:' <"B' 45' 756' 64-' 6595'
P"489' 6595' <D5"' -77' J8' 4595' 6595' "-' ?5<":' -7'
95?-C&">' 45' 6-8"B5B' 45RW' --!' 6595' <J<"B-"5B'
45957-95!' -' J5' ;&AD5B' 8;' <' B<=&>4' J' 45' ">=&:4'
<"B' :5" ' -"' :4-95!' 64595' 45' B&:<J=5B' 6595' D&"B=' '
95<5B' 45' 48==' 6<:' :&==6-94'9&7=&">' 'A-"<&"5B'
P&-"5' =&D5'<==' 45'95:' -7' 45' :4&;:!' <"B'<' 45' J- -?'
-7' 45' 4-=B' 4595' 6595' ;-6B59' J<995=:' 64&A4' 4<B' 5:S
A<;5B' 45' 5L;=-:&-"

-9B' -6<9B' 6<:' :8;;= &">' 4&:' 6-9:' B57&A5"A&5:' -8'
-7' 45' 5"5? @:' -6"' 95:-89A5:!' <"B' 69&">&">' 79-?' 45?S
:5=C5:' 45' ?5<":' -7' A-?;=5 &">' 45&9' B5: 98A&-"' 7 59

P=&?<5=' :-?5'-7' =&5?' 6595' :5"' 64&A4' 6<:' --' 4<B' -' 45' <D5"'
-' L5 59' ><-=!:-?5' 6595' A-"7&"5B "6<!' 45' 7&:4:&"D&">!' <"B' 45
"<4<9"'<' -9' JJ5!:-?5'-"' J95<B' 78=' -7' 6-9?:'<' !8: $' $*
J-<9B' 45&9' -6"' D=&;' <"B' (' -' 'N!(7 '.' 8=' .2$ 8>' M' =44'
3<C5' 5L;5":5!' 45' 6595' 75B' -"' 45' 5*. $!3'
5=8:5' -7' 45&9' -6"' ;9-C&:&-":!

< 6&=B "&>4 ! 45 ? -9"&"> J9-D5 7&"5 <"B : &== 45 6&"B 4<B :4&7 5B 6& 4 45 B<6"! <"B < =&>4 < <&9 6<: "-6 A-?&"> 8;' 79-?' 45 5<: 45 9?<B<V 6<:' -77 -9 =<"B" 45 ">=&:4 4955 -9 7-89 ?&=5:' - 45 C5: " J- 4 7=55 :' = &"> ?- &-"=5::' &"' 45 A<=?! <"B 9&:&"> <"B 7<==&"> - 45 :65== -6<9B J5&"> "-6 - =556<9B! 4<B =-: 4&:' <BC<" <>5 -7 45 B< J57-95 &B-"&<! 4<B 45 6&:45B & ! ?&>4 4<C5 7-9A5B <"- 459 5"><>5S ?5" 6& 4 7<&959 A4<"A5:'&"' 4&:' 7<C-89! J8 45 ;9575995B - 95: 4&:' :4<D5"' A956:! <"B >&C5 45?' J95< 4&">$ &?5 - 95A-C59 45&9 A-"7&B5"A5 5 B&:;< A45B < :5A-"B =5 59 - 45 9&"A5 -7 <9?<! B5:A9&J&"> 4&:' ;-:& &-"' <"B 95=< &"> 4&:' <BC5" 895: 5 ?<B5 45 J5: -7 64< 4<B J57<==5"' 4&?! <"B A-"A=8B5B! -"' 45 64-=5! 4< 45 ">=&:4 6595 <79<&B -7 4&?! J5A<8:5 45 4<B B5A=&"5B - A=-:5 J8 45 6<:' 5C&B5" = 5L 95?5= <"L&-8: 5 D"56 "-4&"> -7 45 A-<: 5 J5>>5B <9?< ?-: 5<9"5: = - :5"B 4&?' ;&=- :' <"B 45 A-"75::5B 4&?:5=7 < <"' 5" &95 =-::' 64< - B- -9 64595 - >-' &7 45 6<:' -C59 <D5"' J < : -9? H

"' 45 4<""5= B89&"> 7&"5 :8?? 59 65< 459! 45 6&"B! <:' 45 7&:45& "5"' :< ! >-5:' 9-8"B 6& 4 45 :8" J=-6:' :-?5 &?5:' 795:4= 79-?' 45 "-9 4$5<: &"' 45 ?-9"&"> & B9-;:' - 45 :-8 4 < "--"" - :-8 4$65: &"' 45 <7 59"--"' <"B :-! 7<==&"> A<=?' < :8":5 ! 9&:5:' <><&"' < "&>4 79-?' 45 "-9 4 &B-"&< D"56 "- 4&"> 45:5 =-A<= ;5A8=&<9& &5:' 45 "5L ?-9"&"> 45 95=< &C5 ;-:&S &-":' -7 45 7=55 :' 95?<&"&"> 8"A4<">5B! <"B 7&"B&"> 4&?:5=7 - 6&"B6<9B! 45 J-95 B-6"' 8;-"' -6<9B! 6& 4 < : 5<B 5<: 59= J9555I5! - -7759 J< =5 45 ">=&:4 45<B5B -8 -6<9B:' 45 :5< 5 :8;;-:5B 4< 45 6595 7= &">! <"B 4-8>4 45 A-&&=B "- -C59 <D5! 45"&& 6<:' 5?; 5B - >&C5 A4<:5 45 ><==5-":! 4-8>4 J<B

K (5B&"< &B-"&< - 45 8D5 -7 <9?<! 8= *.$ 8> * _ =44 % *

:<&=59:' <==!' 6595' -7' 8"5W8<=' :=-6"5::' 45' <"' (<9A-:' -8 :<&=5B' 45' 95: !' <"B' 6<:' =5B' 7<9' J5 -"B!' 459' A-":-9 :' &"' 45' ;89:8&' 45"' 45' J955I5' 45<B5B' 9-8"B' <:' 8:8<=' -9B' -6<9B' C<:' "- # -' 6&"B C<9B' -7' 459!' 64&=5' :45' 6<:' 459:5=7' :5C59<=' ?&=5:' -' 6&"B6<9B' -7' 459' A-"S :-9 :!' <"B' J5 -"B' 95<A4' -7' 45=;' 79-?' 45?

45' -JR5A' -7' 45' ">=&:4' 6<:' -' <C-&B' <' >5"59<=' 5"><>5?5" !' <"B' 5:;5A&<==' -' <C-&B' A-?&">' -' A=-:5' W8<9 59:!' C4595' 45' 5"5?' 6-8=B' J5' -"' ?-95' 5W8<=' 59?:' 6& 4' 45?' -8 "8?J595B' <:' 45' 6595!' <"B' :4-9' -7' ;- CB59!' 45&9' ;=<"' 6<:' -' ?<D5' 45' J5:' -7' 45&9' :8S ;59&-9&' <:' :<&=-9:!' <"B' C-8"B' <"B' &"R895' <:' ?<"' -7' 45'><==5-":' <:' ;-::&J=5!' 6& 4' =5<:' B<?<>5' -' 45?:5=C5:' 45' <"' (<9A-:' C<:' &":<"=' :5' 8;-"' 45' B575"B5B' 459:5=7' 6& 4' 5L 95?5' A-89<>5!' <"B!' <:' 45' ;<"&<&$B:' 4-8>4!' 6& 4' "-' =5::' :D&==' 45' 7-8>4' :&">=5$4<"B5B' 7-9' <"' 4-89' <"B' <' 4<=7!' &9&">' 64<' 45' A-":&B595B' 45' &"5L<?;=5B' "8?J59' -7' 5&>4' :4-:!' <"B' 95A5&C&">' 7& E5 48"B95B' W85"B-' A<?5' <' =<:' -' 45' 95:A85!' <"B' 45' &&A&-"' -7' =?-8 4' 4<C&">' <=?-:' 5L4<8:5B' 4&:' :-AD' -7';-6B59!' <"B' 45' 9&L4<?' :=--;' "-' 4<C&">' 5' -C59S <D5"' 4&?!' -6<9B' 6<:' -J=&>5B' -' B9<6' -77' &=-' 45' A-8=B' J5' 95=&5C5B' 79-?' 45' :4-95H' &B-"&<!' &>"-9<"' -7' 45' ÞA<8:5' -7' 4&:' 95 95<!' J5=&5C5B' 4<' 45' 4<B' J55"' #-9:5B' J' 45' <"' (<9A-:' <=-"5!' <"B' 4<' E&7' 45' ><=S =5<::5:' 4<B'>-"5'&" -' 45' <A&-"!' <:' 45' ?&>4' <"B' -8>4' -' 4<C5' B-"5!' 45' 6-8=B' 4<C5' C-"' <' :&>"<=' C&A -9 EUH

' :9<' #5"5 &<"' 4<B' J55"' ?5<"64&=5' <D5"' J' 45' ;9&C<559:!' 6& 4' -"5' -9' 6-' -459' :?<=' C5::5=:!' <"B' A<9S 9&5B' &" -' 5?-8 4' 45' "5 C:' 4<' 45' ;<"&<9B:' C595' &"' 45' 4<""5=' 4<B' J' 4&:' &?5' ;5"5 9<5B' &" -' 5C59

E' &<9' -7' &9' -4"' <6D&":!' O =5B&"<' &B-"&<' -' -"' 8>-' B5' E=8=' <"B' 8>' *M33_ ' ,' (-"N<B<!' 8=' .F$ 8>' <_ ' % ' ' % '

T' # '

A-?59 -7 45 A-8" 9 ! <"B 45 ;< 9&- &A 45<&' -7 ">$ =<"B 6<: -" 7&&@5 45 L7-9B &>4 489A4 : 8B5" :

R8& H# 6595 9<&"&">7-9 45 -==5>5 < 45&?:' 45 -8">

8>8: < =<B&5: <"B >5" =5?5" 64- 4<B >&C5" 45&9 A-":A&5"A5: &" A4<9>5 - 45 5:8& ?&::&-"<9&5:! 64-! &7 45 <BS ?& 5B 4< 45 6595 ">=&:4! 5 A<==5B 45?:5=C5: &" ;957595"A5 < 4-=&A_ 7&9: < 4-=&A <"B -"= ">=&:4 <7 596<9B:_ 45:5! & ?&>4 J5! 6595 =&D5 -9B 98"B5= &" 45 -659! J5:55A4&">45<C5" 7-9 45&9 A-8" 9 @: 7<==' J8 45 9-J8: 45<9 -7 45 "< &-" =<&B <:&B5 & : W8<995=: -7 -;&"&-" &" 45 ;95:5"A5 -7 B<">59 - ">S =<"B@: &"B5;5"B5"A5 <B (<9 8<9 =&C5B!$ 4<B <?5: -7 A- =<"B J55" < < 4-=&A! <"B 4<B 45 ;<S "&<9B: A-?5 6& 4 "- - 459 ;89;-:5 J8 - ;=<A5 4&?' -" 45 49-"5 -7 =&I<J5 4! 45 <B?-"& &-" -7 ==5" ?&>4 4<C5 7-8"B :-?5! 4-8>4 "- 5C5" 45" ;594<;: < >5"59<=! 95:;-":5 8 4&=&;' 4<B A4-:5" - ;95:5" 4&?:5=7<: ?5<"&">! 8"B59 45 ?<:D -7 95=&>&-"! - ?<D5 ">=<"B < B5;5"B5"A -7 ;<&" <"B! &" 45 7<A5 -7 :- 4< 578= < ;-::&J&=& ! =&77-9B:! <"B #595:! <"B 59A&5: --D 45&9 ;=<A5: J5:&B5 45 <=5&>4: <"B 45 5A&=: -7 45 "56 59<' <"B 79-?' ?5! <"B 5 ?-8 4! <"B --=5! <"B 45 :=5 -7 &>4 ! -8">' =-9B: <"B >5" =5S ?5" A<?5 : 95<?&">' -8 &" 5C59 : :?<AD -9 :=--;' 4< 45 A-8=BK=< 4--=B -7! -' :"< A4 45&9 :4<95 -7 B<">59 <"B >=-9 < -6<9B@: :&B5 45 : 95"> 4 64&A4 45 Ê 6595 <J=5 - <BB 6<: =& =5 -9 "- 4&">' J8 45 J9-8>4 5" 48:&<:?! 45 J9-8>4 - 45 4<=7$: <9C5B <"B "5>=5A 5B A956: 45 :5":5 4< 45 45<9 -7 ">=<"B 6<: 6& 4 45?! <"B 9<":7-9?5B 5C59 A-?? -" :5<?<" &" - < 459- " 45 85:B< 5C5"&">' <7 59 45 7&>4 ! (5B&"< &B-"&< A-8" 5B < 48"B&@5B :<&= J54&"B 4&?! <"B -J:59C5B! 6& 4 :-?5 8"5<:&"5::! 4< 45 "8?J59: 6595 A-" &"8<== &"A95<:&">

5B"5:B< 6<: <><&" A<=?' 5& 459 :4- "-9 ;-6$

B59' 4<B' RE5 ' <99&C5B!' 4-8>4' 5L;95::' <7 59' 5L;95::' 4<B' J55"' :5" ' 7-9' & ' -' 9&:D' ?&>4 ' J5' C5" 895B!' <"B' 45' ">=&:4' =< ' "-6' :&L' ?&=5:' 79-?' 45' 9?<B<! <& &">' &==' 45&9' ?<><I&"5:' 6595' 957&==5B ' 45' 8D5!' :8;;-:&">' 45?' -' J5' <79<&B!' :5" ' -"' 8>-'B5' (-"><B<' 6& 4' 45' ><==5<::5:' -' 5"><>5' "' 4<'B<' 4595' 6<:' "-' <' J95<4' -7' 6&"B' -7'<" ' D&"B!' <"B' 45' ><==5<::5:' 4<B'! 45?' <' :-?5' <BC<" <>5' 4595' 6<:' "-' :59&-8:' =-::' 4-65C59' 4<' "&>4 '<??8"& &-"'A<?5' :87==A&5" E7-9' -"5' ?-95' B<@:' 7&>4 &">!' <"B' &9' 5-9>5' <95 !' 64-' 4<B'98"' -8'79-?' J54&"B' 45' :=5'-7' &>4 '&"' <;&""<A5!' -' 55' 64<' 6<:' >-&">' -"!'7-8"B' 4&?:5=7!' <'7&C5'&"' 45' ?-9"&">!'Q&"' 45' ?&B:' -7' 9-8"B' :4-!'7= &">' <:' 4&AD' Q<:' ?8:D5 $4<==:' &"' <' :D&9?&:4' -"' =<"B@H 45' "&>4 ' 8>8:7 &&<B' J55"' :&==' <"B' B<9D' & 4' 45' 7&9:' =&>4 !' 45' ;<"&<9B:' :<6' 6-' -7' 45&9' :-95$C5::5=:!' =-<B5B' 6& 4' ;9-C&:&-":!' J5&">' -65B'<6<'J':-?5' ">=&:4'=<8"A45:!' &45' 6&"B' 9&:&">!' =-"I-' B<' 5 C<' &"' 45' <<!' 6& 4' 6-' ><==5<::5:!' 64&A4' 4<B' <D5"' 5A<=B5@:' ;=<A5' &"' 45' &K5<9!'<'-"A5':<9 5B'&"';89:8&' 45' ?<&"'J-B'-7' 45' 9?<B<'=&">'-;5"!'<"B' 45' <"' (<9&"' 6& 4' &B-"&<H:' H6"'7=<>' J5&">' A=5<9='B&:&">8&:4<J=5!' -6<9B'7-9' 45' 7&9:' &?5' B5 59?&"5B' -' 9'<A=-:5' 5"><>5?5"

' 6<:' <B<'-7' :;5A&<=' B&:&"A&-"'7-9' 45' -6<9B' 7<?&=' 5' --D' 4&:' A-8:&"' -9B' 4-?<:' 6& 4' 4&?'&"' 45' &-"!' 4&:' 6-' :-":$&"$=<6' -9B' 4577&5=B' <"B' &9' &' -8 465==!'&"' 45' 5<9'<"B' 45' =&I<J5 4' -"<:!'<"B' (4' 4&:' -6"' <"B' -"5' -459' :4&;!' 45' #&A -9 !' 8"B59' <;<&"' <9D59!' 45' 65"' : 9<&>4 '&" -' 45' A5" 95' -7' 45' 9?<B<!' : 559&">' B&95A'7-9' 45' <"' (<9&"'459:5=7!'<"B' LA4<">&">' J9-<B:&B5:'<' :;5<D&">' B&:<"A5' 6& 4' 5C59' ><==5-"' 4<' 45' ;<::5B' Q W85"B-!' :895' -' J5' 7-8"B' H4595' 4<9B5:' J=-6:' 6595' >-&">!$ 4956' 4&?:5=7' <A9-::

45 9=A <=5&>4@: A-89:5 J57-95 :45 A-8=B 95<A4 45 <"" (<9 &" 45 9D 9<"" &" -4&?!<"B 6-:-=B&59:-8

R8#CHh# 7-95A<: =5 6595 D&==5B J 45 :4-AD J8 45 9D@:

8>8:7 98BB59 6<:8":4&;;5B :45 A=5<95B 459:5=7-7 459 5"5? ! J8 B9-;;5B <6< 7-9 45 ?-?5" 8"?<"<>5<J=5 -E=556<9B!<"B 6<:&??5B&< 5= :899-8"B5B J <"8?J59 -7><==5-":! 64&A4< 5?;5B -A=-:5 6& 4 459 "'<"" &": <" 459 -6"J-<:4<B 459&"" -6 459:<&=:7&==5B <: 45 ;8==5B 459 45<B 9-8"B! <"B 645"" 45><==5-":4<B <::895B 45?:5=C5:-7 45&9 ;9&I5! :45 :=&;;5B <6< J5 655"" 45?:-7<:! 4<<;<"&:4:;5A<-9 :<::! @ 4-8>4 45:6&7 5::4&;:&"" 45 64-=5 9?<B<;89:85B @ 459! 45 :55?5B &"" A-?;<9&:-"" -J5<<"A4-9@H

45 <A &-"" A-" &"85B <7 596<9B:7-9 :5C59<= 4-89: 45 ">=&:4 4<B "-:87= 595B<<== <9B= <?<"" 4<B J55"" 6-8"B5B 8"5& 459 4<B 45 <" A<; 895: -J-<: -7 <=B59-"" =5<C5:& 8"A59 <&"" 645 459 B< 5 C<95A-C595B 45 : -95$:4&;:' 45 ">=&:4 69& 59:B-" -?a" &-"" 4<C&">" <D5"" 45? 45 -"=C&:&J=5 95:8= 4<B JB5"" 45 5L;5"B& 895 -7;-6B59 8 45 &"C&:&J=5 9`:8& EK -E 45 9?<B< 4<B J55"" 7<9 ?-95 :59&-8: 45 7-89 755 K -7 &?J59 4<B J55"" "-B575"A5 <><&":45 ">=&:4 :4- 45 :-=B&59:4<B J55"" :5" J5=-6 7-LE :5A89& ! <"B 45 J<==:9&;;&">49-8>4 45 -<D! 4<B :5" 45 :;=&" 59:7= &">"<?-">45?=&D5:45== (<" 4<B J55"" D&==5B! ?<" ?-95 4<B J55"" 6-8"B5B ?<: :! <9B:! 9&>>&">! <== 4<B :877595B 45 4<B 5L;5A 5B 4<-"5 5"><>5?5" 6-8=B <""&4&=< 5 45 ;-659 -7 45&9 5"5?&5:! <"B J< =5 7-==-65B 8;-"" J< =5! <"B 4595 6<: <: 5 "-:&>"" -7<"" 5"B 45 J5><"" -J5 <79<&B -7 45 ">=&:4 4595 6<:: -?5 4&">B5C&=&:4 &"" 45 9<;&B ?<" I8C95: -7 45&9 :4&;:<"B 45 -995" : -7 :4- 64&A4

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;=8">5B &" - =&5&9 <== :&B5:! 64&=5 45&9 -6"7=56 6&=B <"B 4<9?=5:: 45&9 <??8"&&-"! --! :=-6= <: 45 4<B 7&95B! 6<: >&C&"> -8 <: 65== <: 45 ">=&:4! <"B & 6<: =5:: 5<: 7-9 45? - :8;;= 45?:5=C5: 45 8D5 95:-=C5B - 7&>4 "- ?-95 &7 45 A-8=B 45=;& ! <"B - ?<D5 45 J5: -7 4&: 6< - 45 9&"A5 -7 <9?<! - C4-? 45 <><&" VC9-5! 6& 4-8 < 5?;&"> - A-"A5<= 4&: ;59;=5L& &5:

 45 5"5? ;89:85 ?5! 45 :<&B 45 7&95 8;-" ?5 ?-: B< :79-? ?-9"&"> &== "&>4 7<==' J8 45 6&== "- A=-:5 <"B >9<;;=5 4<C5 >&C5" 45? 5C59 -;$;-9 8"& 4<C5 ;89;-:5= =57 :4&;: 5L;-:5B - 5?; 45? - J-<9B Ú J8 45 B5A=&"5 - B-& ! <"B 4595 &: "-95?5B ! 7-9 45 <95 :6&7 <"B 65 <95 45 4<C5 ?5" <"B <??84&&-" &" <J8"B<"A5! 64&=5 45:5 <A&-": 4<C5 <=?-: A-":8?5B -89: <"B &7 45:5 A<=?: =<: ! <"B 45 A-" &"85 45 :<?5 <A &A:! <: 45 <::895B= C&=! ?8: 95W85: -89 LA5==5"A - :5"B ?5 6- :4&;=-<B: -7 :4- <"B ;-6B59 &??5B&< 5= <?& " 89>5" "55B -7& 9;: - 7&"B -8K9#B $-" ? <99&C<= - A-?5 -8 <"B R-&" ?5 7 45 6&"B &: 7<&9 C5 :4<== :--" J5 6& 4 -8 J8 ! <" 6< ! 645 459 5 <95 B5 <&"5B -9 "- ! 65 A<""- B- C& 4-8 <??8$ "&&-" -8 ?8: :5"B ?5 <: ?8A4 <: -8 A<" :;<95 H

 45 B< 7-==-6&">! 9&B< ! 45 8D5 6<: <==-65B! < 5:;& 5 45 7&"5 65H& 459 A-" &"85B! <"B 45 ;<"&<9B: "A=&"5B <6< - C<9B: 45 A-<: -7 9<"A5! 64&=5 -6<9B J-95 8;7-9 -C59! 7-9 45 :8;;=&5: -7 <== D&"B: 64&A4 J5 :-79&>4 78== "55B5B 45 <9=-7 8::5L! 64-6<: ?A-??<"B < 45 A<: =5! ><C5 4&? <== 45 ;-6B59 4< 45 4<B 45 : -95:A<?5&"! C4&A4 4<B J55" <D5"79-? 45 ;9&I5: 5C59 J<995=-7 ;-6B59! 5C59 :4- ! 645 459

K (5B&"< &B-"&< - 45 8D5-7 <9?<! 8= .M$ 8>1 _

-7 : -"5 -9&9-"! 4<C&">J55"7&9: A<9578== 95>&: 595B 7-9 45 :5C595 <AA-8" 64&A4 & 6<: D"-6" 4< 45 %855" 6-8=B B5?<"B 45 C&A 8<==59: 4<B "- <99&C5B! J8 6595 :8;;-:5B -J5< 45 ?-8 4 -7 45 4<?5:' <"B 4<C&">-J <&"5B <: ?8A4 <: 45 A-8=B>5 ! &7=5::' 4<" 45 6<" 5B! -6<9B 95 89"5B &" 45 5C5"&">-4&: ;=<A5 &" 45 95<9 -7 45 9?<B<

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K -?:-" -' <=:&">4<?! 8= A-A45 Y <' ?"9%"<! 5:;59<"B-' C59 W F+$ 8>' N _ =44' 5*. $!3 :5 B<J<' =<' J< <==< @_ 9 (/ K E <==Z=5 A-" :8 ?8>59 5" &?

64&=5' < J-<' 65" ' -"' -' 8"D&&KD' 6& 4' <"- 459' B&:;< A4' " 9
-' 45' 9&"A5

' 6<:' J9&57!' 8"5<: !' <"B' &?;< &5" ' &B-"&< 6<:' *M33
&99& < 5B' <' 7&"B&">' "-'<":659' -' 4&:' 7-9?59'=5 59:' 5' ')
<><&"' A-"75::5B' 4&?:5=7' 45=;=5:' <><&":' 45' 95;5< 5B'
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-' A9-::' 7' "- !' <"B' &7' 4595' 6<:' -' J5' ?-95' B5=< !'
45' J5>>5B' 4&?' -' :5"B' &?? 5B&< 5=' 4&9 ' -9' 7-9 '
7= J-< :' -9' >8"J-< :!' 64&A4' A-8=B' ?-C5' W8&AD=!' <"B'
D55;' 45' ">=&:4' <' J< ' 5' 6<:' 8"A-?7-9 <J=5' <' 45'
-:& &-"' -7' 45' 7=55 !' <"B' ;<&"78== ' <"L&-8:' -' 95?-C5'
-' :-?5' ?-95' :5A895' <"A4-9<>5 H' E

' &:' "55B=5::' -' :<' 4<' 45' 9&"A5' 4<B' "-' J55"'
&B=5' &:' 5L;5":5:' 6595' :-' 5"-9?-8:' 4<' 45' 4<B' J55"'
-"A5' ?-95' &"' 5L 95?& '7-9' ?-"5 _ 4&:' <9?' 4<B' J55"'
&"' <:' J<B' A<:5' <:' 45' ">=&:4' 7=55' <' = ?-8 4!' <"B' <'
45' ;-&" E' -7' J95<D&">' 8;' 49-8>4' 7<?&"5 H' 5' 4<B'
D5;' 4&:' ?5"' ->5 459' -"=' J' 45' 5L;5A < &-"' -7' 45'
8;;=&5:' 64&A4' 6595' A-?&">' 6& 4' 45' 7=55' (5B&"<
&B-"&<@:' =5 59:' 4<B' 95<A45B' 4&?' -"5' <7 59' 45' - 459!'
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45' 9<":;-9 :' 45' -77&A59' 64-' A<?5' 79-?' <=<&:' 5LS
;95::5B'&?;< &5"A5' 4<' 45' 6595' "-' <=95<B' 5?J<9D5B'
45' 8D5!' &' :55?:!' 4<B' 5L;5A 5B' 4<' <9?<' 6-8=B'
4<C5' ?5' 4&?' -"' 45' :5<!' <"B' 4<' 45' A-8=B' 7&>4' 45'
">=&:4' 6& 4' 45&9' 8"& 5B' 7-9A5' 5' 5L;=<&"5B' 4<' 4&`'
<:' - <==' &?;-::&J=5' -' A-?5' -8' 64&=5' 45' 5"5? @:'
7=55' 6<:' 8"B&:;59:5B' 6-8=B' J5' A59 <&"' B5: 98A &-"' &:'
9<":;-9 :' A-8=B' "-' ;9- 5A' 45?:5=C5:' 45' 9?<B<'
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45"' ;95;<95B' -' 78=7&=' 4&:' (<R5: @:' A-??<"B:' :' -

K' (5B&"<' &B-"&<' -' 45' 9&"A5'-7' K' @' ';&W85' B5' B5:4<A59:5' B5' ;89<'
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('(3' 2' *+$.+' '8=&-' =44' :!)

:5"B&"> >8"J-< : - ;9- 5A (5B&"< &B-"&<! 45 A-8=B
"- B-& ! 7-9 45 4<B "-"5 J5=-">&"> - 4&? (5B&"<
*M33 &B-"&< ?8: ;9- 5A 4&? ?8"& &-" 45 6-8=B
8>8: 2 ;9-C&B5! (: - 7<9 <: 4&: -6" ;5"89 6-8=B <==-6

4< 45 ?<R5: &A 7=55 64&A4 6<: - -C5964 5=?
- ; ; -:& &-" :4-8=B <99&C5 < 45 :A5"5 -7 <A &-" : - 45=;S
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"= 45 95& 59< 5B_ <"B <: 45 8D5 6<: 5C&B5" = 8"S
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&":&: 8;-" & _ 4< - 9&:D 4&: J<9>5: &" < "<C< 5"><>5S
?5" 6-8=B J5 :&?;=5 ?<B"5:: 45 A-8=B "- 5"S
A-8" 59 5C5" 45 :=&>4 5: 9-== -7 45 :5<! <"B &7 4595
6<: "- 5"5? - 75<9! A-8=B -"= ;<::<75= &" < A<=? H

K <95A5 5= &&W85 -B< C&< ;95S
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Y R8" <9?5 A-" 5= ;<9< &9 Y B<9 -B-:
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5L59A& - ?<: :&5"B- 5= 8W85 J&5"
&"7-9?<B- B5 =- W85 J< ! :59Y B5=
?&:?-0;<95A59 W85 :5 5" &5"B<
5" A8?;=&9 =< -9B5" B ` # (<>K
W8<" - <" 5:! " - B&C59 &9:5 Y - 9<
A-:< <: < W85 5" -B- =- W85 -
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R' . '$*' R !8!B 8= . N$ 8> 3 _
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4< & 6<: "- 45 ;95:5"A5 -7 45
8 A4 64&A4 ;95C5" 5B 4&?7 79-?
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45 ">=&:4 5 "5C59 :;5<D: -7 45
8 A4 J 45 4-"-89<J=5 &=5 -7
5"5?&5: 45 <95 <=6< : =-:
95J5=B5: -9 B-5: 45 <==8B5 <" S
64595 - 45 ;-::&J&=& -7 &" 59S
7595"A5 79-?! 5LA5; &" 45 8:5
-7 =8 : 4<9J-89 45&9 :4&;: 4<B
J55" -77 8"D&9D &" 45 ?&BB=5 -7
8=! J8 45 4<B J55" B9&C5" &" -
45 A45=B J 45 : -9?-7 45
"&>4 -7 45 .&: $F&: !" <"B B&B "-
&::85 79-?& <><&" &== <7 59 45
<A &-" -&= 9<C5=&"5: _ 55 &8"4<?
- <=:&">4<?! 8= . M$ 8> 1$
&==5>956 - <=:&">4<?! 8= RV!E

<9?<@: <": 659 B&B "- B&?&"&:4 (5B&"< &B-"&<@: 8"5<:&"5:: (-95 4<"4<=7 -7 4&: :4- 6<: 5L;5"B5B <"B 6& 4 45 5"5? @: 7=55 : -"5<9! 45 ;9-?&:5B :8;;= 79-? 8"D&9D A-8=B"- 5<:&= 95<A4 4&? "45"&>4 -7 4&: <"@&C<=! --! 45 756 =5?&:4 ;&=- : 4< 45 4<B :=&;;5B -C59J-<9B &" 45 B<9D"5::! : -=5 45 A-ADJ-<:! :5 45&9 :4&9 :7-9 :<&=:<"B ?<B5 7-9 =8:4&">!H =5<C&"> 4&? B5;5"B5" -" 45 &?;5975A D"-6=5B>5 -7 45 ;<S "&:4 :4&;?<: 59: <"B 45&9 : &=? -95 &?;5975A A4<9 :

9<C5! 4-65C59! <: ?< 4<C5 J55" 45 <"L&5 -7 45 ;<"&:4 A-??<"B59 -9B -6<9B <"B 45 ">=&:4 -77&A59: 4<B A<8:5 7-9 B55;59 B&:W8&5 45&9 :;&9& : 595 8":4<D5"! 45&9 95:-=8 &-" 7&9?<: 5C59 J8 45 -8=B"- A-"A5<= 79-?45?:5=C5: 4< 45 4<B :5C595 <"B B<">59-8: 6-9D J57-95 45?! <"B 4< -" 45&9 A-"S B8A -"= & B5;5"B5B -: :<C5 45&9 A-8" 9 ! &7" - 79-? -"W85: ! 5 79-?J5&">45 :A5"5 -7 < J=--B <"B B5:;59< 5 : 98>>=5 - 6& 4: <"B&"><== 4< 45 A-8=B B-! 45 5"5? @: 7=55 4<B <99&C5B < & : B5: &"< &-"! 4-6 4&8A4 &"R895B 45 A-8=B "- 5==! J8 -: <;;5<9<"A5 & 4 & : : 95"> 4 "- ?< 59&<== & ?;<&95B! <"B &" A-?$ 48?&A< &-" 6& 4 45 9&"A5 -7 <9?<@: <9? -9B 5"9 5 ?-89 R-&"5B 45?6& 4 45 :W8<B9-" -7 45 9<&:<"4-89 <7 59 45 <"A4-95B! <"B 7-9 -"B-" ;9&C< 559: 6595 95;-9 5B -J5 &" 45 ?-8 4 -7 45 4<?5: 8 :4&;: <"B ?5" 6595 -7 "-8:5 6& 4-8 7--B <"B <??8"& &-" 5 ?-89 @ 6<: C&A 8<==5B J8 7-9 @ -"5 B<R@: 78== ?5<= @ -6<9B <"B 9<D5! <7 59 :4<9&">

8=' .3$' 8>8:',

&&> *+ _ (-9B =&J59 <95 --">5"8&"5 -95W8&95 -9 4-6<9B:< :5L;95:: = 4< -" 45 ;59?& <7&A & &-8: B&: &"A &-" -45 A&-" -7 8= .N! "- <8 A4 :<&= &" 59 6&"5B&" 45&9=<895=695< 4 H<: C&:&J=5 B-"&":&: X -" 4&: @ -5: 79-?=8:4&">! 8> F$ 9-?<" 6&:4 -B5 9<A 79-? 45 *F _ (<=B59-" :&< : 4&59& : -7 45 =X-==<"B59< 45&9 4< 6--7 45?B5:59 5B -9B >--B B5:59 :&" 45A<8:5-7 89-;5<" -6<9B

<== 45 4<B &" 45&9 95: ;5A &C5 B&C&:&-": 5D5B -8 <:&
 4<B J55" J :4-9 9< &-": 7&:4 <"B C-=8" <9 7<: &">
A-8=B ;9-C&B5 45&9 A956:J8 6& 4 7&C5 :A<" B&""59:
<"B -"5 J95<D7<: ? -95 45 ;9-C&:&-": :<&B -J5 -"
45 6< 4<B "- <99&C5B <"B -7 ;-6B59 <7 59 <== 4<
8::5L 4<B J55" <J=5 - 789"&:4 -8 -7 -C59 <: =5
45 4<B -"= :87==A&5" 7-9 -"5 B< @:7&>4 &"> 89>4=5
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J-99-6 ? -"5 &" 45 & ! J8 4&: A95B& &" 45 &
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45 ;98B5" ? 59A4<" : 4<B B9<6" 45&9 ;89:5 : 9&">:
&== 45 A=-8B -C59 45 78 895 :4-8=B J5 9<&:5B 45
95<:89 6<: "- 5? ; 4595 &: "-95A-9B 4< 45
4<=7 ?&==&-" -7 95:59C5 4<B J55" -8A45B 45 89778E"$
B&<" B&<?-"B: 4<B J55" "5& 459 95: -95B "-9 B&:;-:5B
-7 J8 - 45 ?-"5 <"B 45 R565=:! 64&A4! < -6<9B
:<&B! C-8=B "5C59 :<C5 459! =&I<J5 4 A=8"> C&4 45
?<BB5"5B >9<:; -7 ;<::&-"< 5 <C<9&A5 6<: D"- C"
4< 4595 6<: ;-6B59 &" 45 -659 ?5::5">59 4<B
><==-;5B 8;79-? -C59 : < &"> 45 A-"B& &-" -7 45 7=55 !
<"B ;95::&"> 7-9 <!" &": <" :8;;= 45 ?-: <;5$
J-8"B A-": & 8 &-"<= -C59"?5" A-8=B "- 4<$C5 :5" <
?-95 45=;=5::<": 659 4<" <=:&">4<?6<: -J=&>5B -
95 89" 45 <B?&9<= 6<: = &"> 6& 4 5?; ?<><I&"5:!
6& 4 <" 5"5? 6&A5 4&: : 95"> 4 <=?-: 6& 4&" >8"S
:4-!<"B 45 6<: 95W8&95B -:;5A&7 5L<A = @ 45 ;9-$
@ ;-9 &-" -7 :4- <"B ;-6B59 4< 45 6<" 5B @H
5:59 59: ?< ;594<;: 4<C5 A-?7-9 5B 4&?6& 4 45
D"-6=5B>5 4< 45 ;<"&<9B:6595 "-@J5 59 ;9-$C&B5B
J8 <9?<@: ?<><I&"5: 6595 < 4<"B! <"B B5=< < <==

I 89>4=5 - <=:&">4<?! 8= <&" -7 45 :59C&A5!! 4< "-?<V
*N$.N _ $ % A<" B-& " 45957-95 6& 4 <== :;55B
@ -8 69& 5 4< ? 8: ;5A&7 :5"B -:?8A4 <i -8A<" = ("
45 ;9-;-9 &-" -7 :4- <"B ;-6B59 6 % 8= .N$ 8>
4< 65 6<" 8A4 &: 45 8"A59S

5C5" :' 6<:' 98&"' <9C< &-"!' &7' "- 4&">' 5=:5!' 6-8=B'
B9&C5' 5C59 ' ">=&:4' :4&;' 79-?' 45' :5<:' &"' <"- 459' 655D!E
<"B' 45' 4<""5=' 6-8=B' J5' &"' 45' 5"5? @:' ;-::5::&-"'
8"B<' 6<:' 7&"5!' 6& 4' 45' 6&"B' : &=='79-?' 45' :-8 4S
65:' 45' J-<:'-7' 45' 9?<B<';<::5B' J<AD6<9B:'<"B'
7-96<9B:' J5 655"' 45' ><==5-":'<"B' <=<&:!' J9&">&">'795:4'
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<7 59"--"!' <:' 45' J955I5' 795:45"5B!' 7&C5' =<9>5' ">=&:4'
:4&;:' B9-C5' 45&9' <"A4-9:'<"B'7-8=5B'5<A4'-459'J8' 45'
595' :5;<9< 5B'C9& 4-8':59&-8:'489'<"B' :5A895=ŒH?--95B'
<><&"!' <"B' <' 7&C5' &"' 45' 5C5"&">'<A-8"A&='-7' C<9' C<:'
45=B' &"' -6<9B@:' A<J&"' - C<9B' 4&?:5=7!' 6& 4' 457S
7&5=B!' 5 ?-89!' -8 4 C5=='!' <=?59!' 9<D5!' <6D&":!'
&" 59!' 5""59!' <"B' 9-J&:459' <::5?J=5B!' 6& 4' 45' 7< 5'
-7' ">=<"B' &"' 45&9' 4<"B:!' -' B5A&B5' 64<' -' B-' 7' 65'
<95' -' J5=&5C5' <?B5"!' @ 45' 7-95:&>4' -7' %855"' =&I<$'
@J5 4@ ;95:A9&J5B' 45' A-89:5' C4&A4' C<:' 95:-=C5B' 8;-"
+!' -'()$+' ,!!# 8'$' ('"+%&!6'",%$!'%('#+!'!6.!'%'#+!'
$+%',' 9'#!&'('(6'#%''##'"H')#' 9+!&!')#','0'8'$')*-%$$)2,!'
#' 9'$ 6!#!&*)(!6'#%' 6&)9!'#+!*'%/#)(#%'#+!' +'((!,'
)#+')&! $+)-$'% ' 9+)"+'#+!0'8!&!'H(% 9('#%'2!' &')6'
)&' !(&0' ',*!&'-&%-%$!6'#%'"&%$$'#%' %9!&'('(6'!#"+'
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G%,/(#!!&'9!$$!,$' 9+)"+'+'6''##'"+!6'#+!*$!,9!$'#%'#+!'
,!!# #+!&!' 9!&!' *'(0'#+'#'8%/,6'2!' /$!,!$$')(''"#)%('
4(6''$')#''$'#+!'2!$#' %&'#+!'$!&9)"!' %&'8+)"+'#+!0'8!&!'
)4%8' (!!6!6').+#' 8!&!'#'H!('#+!'&)..)(.'$*!'&!6'
G'-)6,0' 8)#+' -)#"+' #+!' +/,,$'),,!6' 8)#+' '(0' /$!,!$$'
G''#!&)',' 8+)"+'"%/,6' 2!' !F#!*-%&)$!6'#+'#'8%/,6'"%('
#);)2/#!'#%'#+!'2,'1!' +!'$H0' 9'$",%/60' +!'*%%('
G4'$,'#!')(')#$',' $#' Y/''&#!&' '(6' 6)6' (%#' &)$!'#),,')(%&('
,/.N' '(6'#+!'#)6!'#%8'&6$'*)6().+#'$!#' 6)&!"#,0'6%8('
);%&))' #+!' (.,)$+' -%$)#)%('#%' 8+!&!'#+!' $+)-$'%'#+!

'
' #

*M33'
8=''.3$'
8>8:',

#

*H-B3

8 = ' . 3 $'
8>8: ' ,

9?<B<! :55D&">:45= 59 79- ? 45 J5"B -7 45 A-<: ! =< 48BB=5B B<">59-8:= A=-:5 -">! =-6! :&>4&">>8: : 79- ? 45 65: 6<9B ;9-?&:5B 45 9&:&">-7<><=5H 45 A956:-7E 45 A-"B5?"5B C5::5=:8"B59 --D -;&=- 45? -45&9 B5: &"<&-"! <"B 45"J5=< 45 :455 :! =<:4 45 45=?! 7&95! <"B =5<C5 45?

48:! 645"45 ;<"&:4 J5==: 6595 <J-8 : 9&D&"> 65=C5! <"B! :<C5 45 6< A4 -" B5AD! :-=B&59:<"B :5<S ?5" =< : 95 A45B &" :=55;! A59 <&" B<9D -JR5A :64&A4 4<B J55" :55" B&?= B9&7 &">-" 45 &B5"5<9 64595 45 ><==5-":=< 4&AD5: ! :4- :8BB5"= &" -; 9<?&B:-7 =&>4 ! 7=<?5:=5<;&">79-?98BB :<&= -:<&=! 7=&AD59&">-" 45 9-;5:! <"B 7-95A<: =5: 7-95?<: :<"B J-6:;9& :<=8&E&B J=<I5-7A-"7=<>9<&-" H A--= A-??<"B59 ?&>4 4<C5 -9B595B -8 4&: J-< :<"B -65B 45 7&95:4&;:A=5<LE J8 (5B&"< &B-"&<! 6& 4 <: 9<&" <=95<B 8;-" 4&? J5 -"B 45 : 95"> 4 -7 4&: A<;<A& ! :<6 A-?&">8;-" 4&?: -?5 599&J=5 5">&"5: -7B5: 98A &-"! =&D5 45 7=-< S &"> ?&"5 64&A4 4<B :4< 595B <9?<@: J9&B>5 < " S 659; <"&A :;95<B 49-8>4 45 5" &95 9?<B<" 45 5"5? 45 ?-: B95<B5B 6<:8;-" 45? 45><==5-":6595 5<A4 9&B&">6& 4 6-<"A4-9:7-9 45&9 ?&:7-9 8"5 756 -7 45?6595 ;9-C&B5B 6& 4<4&9B :4-6<:7&95B 79-? 45 <" (<9 &" <: <:&>"<= -A8 -9 :=&; 45&&@ A<J=5:<"B ?<D5 -:5< ?&B: A9&5:<"B A-"78:&-"! <"B =&>4 5B -45&9 6-9D J 45 J=<I5! 45 :5 :<&= <"B A=5<95B <6< ! A-">9< 8=<&">45?:5=C5:6 45" 45 4<B 95<A45B 45 -;5" 6< 59 <"B 7-8"B 4<<==-9 ?-:

K -9 45 B5 <&=: -7 45 :A5"5: -7 -A- <=B59-"! 45 9&"A5 -7 :A-=&V 45 "&774 <"B 45 7-==-6&">B< ?8: 95759 >5"59<== -45 =5 59: -7 -6<9B! 9<D5! &" 59! -?:-"! 5"59! <"B -459: &" 45 5A-9B 77&A5! <"B -7-89 ;<"&:4 <AA-8" :! 69& 5" J ;59:-": <A 8<== ;95:5" ! -"8<"B5 (<"9&W85! <"B-"5?-9O 64-:5"<?5&:"-&C5"! <==-7 64&A4 <95&" (< &?<"A<:

K I 5==<: <9B&5"B- 5:;<" -:<S ?5" 5_ 9 /

-7 45?' 6595' :<75!' -"' 45' :D&=' 6& 4' 64&A4' 45 ' 4<B'
B575< 5B' 45' ?<A4&"< &-":' -7' 45' 5"5? E 45 ' =< $ -'
:&L' ?&=5:' 79-?' :4-95!' &" 5"B&">' -' 95 89"' 6& 4' 45'
B< =&>4 !' 95A-C59' 45&9' <"A4-9:' <"B' 95:8?5' 45&9' -=B'
;-:& &-"

45' ">=&:4' ?5<"64&=5!' 4<C&">' <AA-?;=&:45B' <' =5<:'
;<9'-7' 45&9' ;89;-:5' &"' : <9 &">' 45' 9?<B<-8'-7'& :'
J59 4!' 65&>45B' <' =5&:895!' <"B' : --B' -77' <7 59' &' 79-?'
45' :4-95!' 9<D5!' 6& 4' 4<=7' 45' 7=55 !' 4<">&">' -"' 45'
:D&9 :'-7' 45' ;<"&<9B:'' -6<9B!' C& 4' 45' 95: !'4-C59&">'
"5<959' -' <=<&:!' 5"B5<C-89&">' -' B9&C5' &"' 8;-"' 45'
:<"B:'-9' 45' 7&95:4&;:' 45' =<:'=-& 5959:'-7' 45' 9?<B<$'
C4&A4' 4<B' J55"' :=- C59' 4<"' 45' 95: H'&"' >5 &">' -8
45' 7&9:' -J&5A' 64&A4' 45' B?&9<=' :<6' <' B< J95<D' 8& H>$
C<:' 45' =<9>5:'-7' 45' 7-89' ><==5<::5:!' 6& 4' B5' (-4^<B<
4&?:5=7 -"' J-<9B!' <>9-8"B' -"' <=<&:' <9' 59' 45=?'
4<B' J55"' 5" <">=5B' &"' d' A<J=5!' :45' 4<B' J5A-?5' 8">-S
C59"<J=5!' <"B' 45' &B=5' 4<B' 7-9A5B' 459' <:4-95' 6& 4&"'
:4-'-7' 45' 95"A4' J< 59&5:' <' J<AD'-7' 45' :<"B$J<"D'
C4&A4' 7-9?:' 45' 4<9J-89' 45' &B5' 4<B' 5JJ5B!' 45'
C<59' 6<:' : &=' 9-8"B' 459!' J8' :45' 4<B' 7<==5"' -C59'
-6<9B:' 45' J<"D!' <"B' -6<9B!' 64-:5' "-&-"' 6<:' -'
' ;=8AD' 45' 75< 459:'-7' 45' ;<"&<9B:'-"5' J'-"5!' H:5"'
4&:'-6"' =<8"A4' C& 4' :-?5' - 459' J-<:' -' <D5' $459
45' 6<:' ;-65978==' ?<""5B' J5 655"' :-=B&59:!' :<&=-9:!'
b&"B' :=<C5:!' :45' A<"B5B' :5C5"' 48"B95B' ?5"' &"' 45'
;-:& &-"' &"' 64&A4' :45' C<:' = &">!' 4-65C59!' 459' =<9>5'
>8":' 6595' 8:5=5::!' <"B' 45' ><==5' :=<C5:!' C& 4' 45' ;9-S
:;5A'-7' =&J59' J57-95' 45?!' B&B' "-' ?<D5' 45' B575"A5'
4&-95' 5<:' 45' ;<"&<9B:'7-8>4' ><==<" = ' :5C59<='
f&7' 45' ">=&:4' C595' D&=5B!' J8' <' =<:' 6-' ?8:D5 $'
4<=:' : 98AD' (-"^<B<' <' 45' :<?5' ?-?5" ' 5' 75==

' ' -9' 5: <9' J-=5<B-' B5' 8"' =<B- '
K -6<9B' -' <=:&">P<?!' 8= ' .N$ 8>' 3 _ ' 5*. $!3

#

*M33'
8= '*N$'
=8>8 '3

B5<B -" 45 B5AD 45 :=<C5: :;98">-C59J-<9B!<"B 4<=7&"; <"&A <"B 4<=7&"; ;89:8&! 45 A956<"B 45 9--;:7-==-65B (-?5:6<?!:-?5 6<B5B-"::4-95! (?<" 6595 B9-&C &5B(45 ">=&:4:6<9?5B8;-C59(45 J8=6<9D:!--D;-::5::&-"-7 45 ><==5<::!<"B&"S 5"B5B-6<&7-9 45 &B5-A<99 459-77

45 95"A4?5<"64&=5 6595 6< A4&">45 :A5"5&" A9-6B:79-?45 -;-7 45 :J<"D (-89B<&"!<: 45 :4&;6<:-" 45 95"A4:4-95!?&>4 4<C5 B&:;8 5B &7 45 4<B ;=5<:5B 45 =<678="5::-7 45 A<;895 5 A-" 5" 5B 4&?:5=76& 4:5"B&">-77<J-<6& 4<?5::<>5 4< 45 ">=&:4 B5:59C5B 45 :;-&=7-9 45&9 A-89<>5! <"B ?&>4 4<C5& J8 45 :4&;& :5=7 45 95W8&95B 45?- =5<C5 64595& = 45 =<">8<>5 6<:;5975A= 79&5"B=!<"B -89B<&" 4<C&">J55" <;;-&" 5B J 45 &">! 6<:J5 59 B&:;-:5B -">=<"B 4<" -;<&"$ <&-"<= <" &;<4!4-65C59!;9-C5B --: 9-"> -J5 A-" 9-==5B (89 98B5?5"!(:<:<" ">=&:4-77&A59 64- 6<:;95:5"!(D"-6&"> "- B&77595"A5 J5 655" (79&5"B <"B 7-5!(J5><" -&==8:5 45 95"A4 64-4<B A-?5-" J5<9B! (:;-&=&"> 45?!(<"B ;9-J<J=;&A4&"> 45?&" - 45 :5< 45&9 79&5"B:-" :4-95 --D 8;- 45&9 W8<995= 45 :J<"D J< 5& -;5"5B 8;-" 45 ><==5<::&" 95 89"!<"B 45 ">=&:4 4<B -:A9<?J=5&" - 45&9 J-<:&" 4<:5! A<99 &"> 6& 4 45?64<;=8"B59 45 A-8=B:5&I5H

6<:65== 4<" "- ?-95 &?5 6<: 6<:5B -C59 :- :?<== <?< 59 -9B -6<9B 4<B B5=< 5B <=95<B --= ">7-9 4&:7<?5H 6<:" - &?5 7-9 45 B?&9<= -7 45 7=55 - J5 =-&59&"> -C59 <:9<;=8?5 64&A4 4<B

K -?:-" - <=:&">4<?! 8= :5 B< Y 9<AD(< V$ '3$'*6''8 $$36' F+$& 8> 5*. $!3' 6*.' '8'!' 8>' F*' =44'4!P ((5= =?&9<" 5 :54<J=<8"; -A- .'(3' W85"-4&I-:8 B5J59 -B<=<>=-9&<

!!

B9-;;5B' 79-?' 45' 5"5? @:' 6&">!' 645&&' 5C59 ' :4&;' 6<:'
&?;59&-8:=' "55B5B' 7-9' <' 7<9' ?-95' &?;-9 <" ' :59C&A5'
(5B&"<' &B-"&<' &" 5"B5B' -' 95 89"' -' 4&:' ;-:& &-"' < '
<=<&:' 9<D5!' 64-:5' =<9>59' ?&"B' A-?;9545"B5B' 45'
;-:& &-"' &"' & :' J9-<B59' J5<9&">:!' 6<:' B5 59?&"5B' "-'
-"=' 4<' 45' :4-8=B' E"5C59' :55' 4&:' <"A4-9:' <><&"!' J8'
4<' 45' :4-8=B' J5' B9&C5"' "-9 4' 49-8>4' 45' <99-6'
5<:' 45' 6&"B' 6<:' :&==9&:&">' <"B' 495< 5"5B' <' : -9?'
5EH4<B' :55"' 5"-8>4' -7' 45' :<&=&">' ;-659:' -7' 45' ><=S
=5-":' -' J5' <::895B' 4<' 8" &=' &' :4&7 5B' 45' A-8=B'
?<D5' "-' 6<' <><&":' &' "' <"B' -"A5' &"' 45' -9 4' 5<!'
45' 6-8=B' J5' &"' 8"D"-6"' 6< 59:' 6& 4-8' <' 4<9J-89'
&" -' 64&A4' 45' A-8=B' C5" 895' -' 98"!' <"B' <' <==' 5C5" :'
7-9' <' &?5' A8' -77' 79-?' 45&9' A-??8"&A<&-"' 6& 4' 8"$'
D&&@D' 45' 4<B' B9&7 5B' &"' 45' "&>4' 789 459' 4<"'
45' &" 5"B5B!' <"B' 645"' 45' :8"' 9-:5' 45' 6595' :A<K'
595B' -C59' <' =<9>5' :897<A5' -77' 9<C5=&"5:' &>"<=:' 6595'
5"' 8;' 7-9' 45?' -' A-==5A' <"B' ?<D5' J<AD' 7-9' <=<&:"'
J8' 9<D5' 6& 4' 4&:!' -6"' :W8<B9-"!' <"B' 5"9' 5 S
?-89!' 6& 4' 45' :W8<B9-"' -7' 45' 9<& :!' 4<C&">' 45' <BS
C<" <>5' -7' 6&"B!' :;55B!' <"B' :D&==!' A<?5' -"' 45?' 64&=5'
45' 6595' : &==' B&:;59:5B' 5 ?-89' -;5"5B' 45' <A &-"'
<' 5&>4' &"' 45' ?-9"&">' 6& 4' <' A=8: 59' -7' ><==5-":' -"'
45' ;<"&<9B:@ 5L 95?5' 9&>4' 5:59C&">' 45&9' 7&95' &==
C& 4&"' <' 48"B95B' <"B' 65" ' <9B:!' <"B' 6<: &">' /"-'
<9 9&B>5:' <' <" ' =-">59' B&: <"A5!' 45' ">=&:4' :4&;:'
-" &"85B' 49-8>4' 45' 5" &95' 7-95"--"' -' ;-89' &" -'
=H45?' -"5' A-" &"8-8:' 9<&"' -7' :4-' 45' 6595' B9&C5"'
P;-"' 45&9' -6"' A5" 95!' 64595' 45' J5A<?5' 5" <">=5B'
H' <' A-"78:5B' <"B' 45=;=5:' ?<::!' <' ?595' <9>5' -' 45'
RHH&><&:4>8":!' &9' &==&<?' &" 59' <=-"5' B5=&C59&">' 7&C5
J
HKHPB95B' :4-' &" -' 45?!' @"5C59' -8' -7' 4<9W85J8I'
HH8>5!' <"B' -7 5"' 6& 4&"' :;5<D&">' B&: <"A5@H

@' &" 59' -' <=:&">4<?!' 8>!' &$&& _ ' $ %

- - - =(

(- . & 8>8: '3

9<D5 4& ? :5=7 ?5<"64&=5 4<B 7<==5" -" (5B&"<
&B-"&< <"B W85"B-! 64-! 6& 4 < :A-95 -7 ><==5-":
J5 59 4<"B=5B 4<" 45 95: ! /&C595 5"B5<C-89&"> - D55;
:5< 9--?! <"B 95 <&" :-?5 A-??<"B -7 45?:5=C5: 8
45&9 C"95 A45B :<&=&"> ;-659: ;8 45?< <B&:<BC<" <>5
7-9 64&A4 :D&= <"B A-89<>5 A-8=B "- A-?;5":<5 45
">=&:4 6595 <=6< : -6"B6<9B -7 45"&! <"B 45??5B
&" < 5C59 89"! 45 -- 6595 7-9A5B J<AD 8;-" 45&9
A-":-9 :! 48" 5B ->5 459 <: < :45;459B 48" : :455R78;-"
< A-??-"! <"B 45 64-=5 ?<:: -7 45? 7-9A5B :=-6=
-6<9B: 45 :4-<=: <"B J<"D: -" 45 =<"B59: A-<:
-6<9B A<?5 8; < "--" - R-&" &" 45 6-9D -7
B5: 98A &-" 45 ">=&:4 <AA-8" : 5== < :&?;=5 : -9
45 ;<"&<9B:@ >8" ;9<A &A5! 64&A4 4<B J55" <=6< &@
J<B! 6<: 45=;=5:: J5 -"B ;<: 5L;59&5"A5 45&9 6<"
-7 <??8"& &-" 6<: "- :8:;5A 5B! 7-9 45 A-" &"85B -
7&95 49-8>4-8 45 B< <7 59 45&9 :=-6 <6D6<9B
7<:4&-" J8 45&9 >8":! 6-9D5B -" 9-==&"> ;=< 7-9?: J
:-=B&59: 8"8:5B - 45 :5<! :5" 45&9 :4- &" - 45 <&9
-9 &" - 45 6< 59 64&=5 45 ">=&:4! 45?:5=C5: <=?-:
8" -8A45B! 7&95B &" - 45? 6& 4-8 &" 59?&::&-" 79-?
5&>4 &" 45 ?-9"&"> &== :8":5 ! @ 645" <=?-: 45 =<:
@ A<9 9&B>5 6<: :;5" ! <"B 5C59 ?<" 6<: 65<9 6& 4
@ =<J-89!@ 45 --D "- ;9&I5: <"B < 5?; 5B - <D5
"-"5 45&9 -9B59: 6595 - :&"D -9 B5: 9- 45
:<6 4955 =<9>5 ><==5-": >-B-6" 4955 - 459:! <: 45
6&"B 75== 65: 59= ! 45 :<6 955=&"> 45=;=5::= -6<9B:
: 5"B <"B 45 7< 5 -7 45:5 45 45<9B -7 <7 59$
6<9B: J8 -7 45 >5"59<= 5775A -7 45 7&95! "5& 459
< 45 &?5 "-9 <7 596<9B: B&B 45 D"-6 <" 4&">
J5R?"B & : ;9<A &A<= <"B J9-<B 95:8= : -?5 B5 <&=:!
4-65C59! -7 4< 599&J=5 B< A<" J5 >< 4595B 79-? 45
"<99< &C5: -7 45 756 ;<"&<9B: 64- 7-8>4 49-8>4 &
<"B :89C&C5B - 5== 45 <=5

5&"> <=6< : - =556<9B <"B 45 6&"B J=-6&"> 4<9B! 45 48==: -7 45 ><==5-": <: 45 455=5B -C59 6595 5LS ;-:5B J5=-6 45 6<59$=&"5 45 ?<::&C5 &?J59: 64&A4 6595 - 4<C5 789"&:45B :- :5A895 < :45=59 <BB5B -"= - 45 5775A -7 45 :4- 45 ?&BB=5 B5AD: 6595 89"5B&" - :=<8>4 59$4-8:5:! <"B &" -"5 :4&; J=--B 6<: :55" :95<?&"> 79-? 45 =55 :A8;;59: 45&9 >8": 595 ?-: -7 45? B&:?-8"5B -9 D"-AD5B &" ;&5A5:! <"B@ 45&9 A4&57 6-9D 6<: - :<C5 45?:5=C5: 79-? :&"DS &">J "<&=&"> :455 : -7 =5<B -C59 45 :4- $4-=5: 45 <A&-" 6<:!-" :- =<9>5 < :A<=5! <"B 4595 6<: :- ?8A4 :?-D5 <"B A-"78:&-"! 4< &"B&C&B8<=: A-8=B -"= :55 k 64< 6<: &??5B&<5= "5<9 45? -" 5B9- -A- <=B59-"! ;89:59 -7 45 7=55 !=< ?-: -7 45 B< < 45 :&B5 -7 (5B&"< &B-"&<! 4&?:5=7 5L;-:5B - 45 5?;5: -7 J<==: =-"I- B< 5 C< 6& 4 45 < < 6<: "5L - 4&?! <"B A=-:5 J 6595 45 <" (< 5- <"B 45 <" 5=&;5! A-??<"B5B J -" &5>- B5 &?5" 5=<"B -" 9<"A&:A-B5 -=5B- 45 6595 -;;-:5B - 9<D5 &";59S :-"! <"B 79&>4 78= <: 6<: 45&9 B&:<BC<" <>5! 45 7-8>4 &4 A-":;&A8-8: A-89<>5 &4 ?5" 7<==&"> &" <== B&95A&-":! <"B 45<B: <"B <9?: 7= &"> &" 45 :?-D5! 45 :&== ?<""5B &45&9 ?<&" -;:! D55;&"> 8;< 7&95 -7 ?8:D5 J<==: -" 9<"A&:A- 7&"B&">! <: 45 :8;;-:5B! 4< 45 <" 5=&;5 6<: :&"D&">! < 5?; 5B - >9<;;=5 6& 4 45 ">=&:4 :4&; 4< 6<: "5<95: - 4&? 5 4<B 7-8>4 - 65==! 4< -"5 -7 45 ">=&:4 -77&A59: :55&"> 459 <;S ;<95" = B5:;59< 5 A-"B& &-"! :;98"> 8;-" 4&: 7-95A<: =5 $"B A<==5B - 4&?&" ;<"&:4 A-?;=&?5" &"> 4&: C<=-8&@! <"B J&BB&"> 4&? :<C5 45 =&C5: -7 4&: J9<C5 A956 J <" 4-"-89<J=5 :8995"B59 "5 -7 45 ;<"&<9B: 95;=&5B C&4 < :4- 79-? < ?8:D5 45 -77&A59 75== 45 ">S =&:4 :4&; 7&==5B 459 :<&=: <"B J<AD5B <6< !=5<C&"> 45

0 0 879&5"B-= 5?;5: <B B5 =<A<9>< B5 J<=<I5: @

T #

- - - =(

*M33 8= . N$ 8>8: 3

< " 5=&;5 -459 7< 5! 45 ;<"&:4 A956 :4-8 &"> <7 59 45?4< 45 6595 A-6<9B: <"B 8 459<" 45":! <"B B<9&"> 45?- A-?5-" -"A5 ?-95 H

6<: <" &B=5 J9<C<B- : --" <7 59 45 <" 5=&;5 :5" 8;:&>"<=: -7 B&: 95:: J<9W85 A<==5B 45 -"$ A5==< 65" -459 <::&: <"A5! J8 6<: 459:5=7 :4- 49-8>4 <"B 49-8>4 64&=5 45 A956 -7 45 <" 5=&;5 6595 >-&"> -" J-<9B 459 <"B :45 7&==5B :-9<;&B= 4< 45 95 89"5B &" - 45&9 -6" ><P5-"!H ?<B5 7-9 45 :4-95! <"B A-" 9&C5B -D55;<7=-< &== 45 -8A45B 45 :<"B: J5 655" &58;-9 <"B : 5"B 45 &58$;-9 J-< ?5" A<99&5B 45?&" - < 79&5"B= 4<9J-89! 79-?645"A5 45 ?<B5 45&9 6< - 45 9&"A5 -7 <9?< 45 <" " -"&- -7 <B8<! <"- 459 -7 45 4955 64&A4 45 ">=&:4 -J:59C5B -7<== <6< ! A9<6=5B &" - : 5"B! 64595 :45 6<: <D5" ;-::5::&-" -7 J 45 ">=&:4 ><99&:-" 45 <" (< 5-4<B < :<BB59 7-9S 8"5 45! --! 7&"B&"> 4< :45 6<: 7&==&">! :5" - (5B&"< &B-"&< 7-9 <::&: <"A5 (5B&"< &B-"&< 4<B 6-9D 5"-8>4 - :<C5 4&?:5=7! <"B A-8=B "- 45=;459K 45 6<: ;8 J57-95 45 6&"B <"B 7-==-65B 45 <" 5P;5! J8 7<==&"> ?-95 - =556<9B >9-8"B5B! J5 655" : 5"B <"B 45 =8 : 45 6<: :55" ⍰J < 8 A4 =8>>59! <"B -9B &==-8>4J ! 64- 6<: &" =8:4&"> :5" 4955 C5::5=: - <D5 ;-::5::&-" -7 459 45 <><&" ?<B5 < ><==<" 7&>4 ! <"B 7-9 6- 4-89: D5; < J< 45 "56 <::<&=<" :! J8 :45 6<: A<99&5B J J-<9B&">< =<: -" &5>- <"B 6- -9 4955 "-J=5?5" 6595 95:59C5B <=&C5 7-9 45&9 9<":-?" <== 45 95: ! 45 :89C&C-9:-7 7&C5 48"B95B 64- 65" &" - <A &-" &" 45 ?-9"&">! 6595 5& 459 D&==5B -9 7=8">& - 45 :5< ?-"> 45 J-B&5:

⍰ ⍰ -: "85: 9-: ==<?Y"B-=5: A-S "<: 8 59<"<: W85 C-=C&5:5"Y =< J<9B5:! &"&?<"B-A-";<=<J9<:75<: J< <==<⍰_ &9 (/ :8 ;-A-<"&?-! ==<?Y"B-=5: B5 ><==&S

595' 7-8"B' 4-:5' -7' 6-' ">=&:4' 9578>55:!' -"5' -7' 45?'
<' J9- 459' -7' -9B' (-" <>85 HE

8 :&B5!' ?5<"64&=5!' 45' J< =5!' &7' J< =5' &' A-8=B' J5'
A<==5B' 64&A4' 6<:' J8' 45' 95"B&">' <"B' 5<9&">' -7' <
:A<9A5' 95:&: &">' 5"5? !' A-" &"85B' &=-' 5C5"&">' -6<9B:'
:8":5' 45' 6&"B' :4&7 5B' -' 45' "-9 4$65:' 6& 4' <"' &"S
A95<:&">' :5<' 45' 6-8"B5B' :4&;:' 6595' B9&C&">' &"' <
?<:' -6<9B:' 45' J<"D:!' <"B!' 4<B' 45' ">=&:4' ;-6B59'
45=B' -8' 7-9' <756' 4-89:' ?-95!' 45' 5" &95' 9?<B<' ?8:'
4<C5' J55"' 5& 459' :8"D' -9' B9&C5"' <:4-95 H' 8"' <7 59'
>8"!' 4-65C59!' 75==' >9<B8<==' :&=5" ' 756' ;9-C&:&-"'
:4&;:' A<?5' -77' 79-?' 45' 4<?5:' 6& 4' <' B<' -9' 6-@:'
9<&-":' 45' ?5"' 6595' 5L4<8: 5B' 6& 4' -&=' <"B' 48">59'
A-?J&"5B!' <"B' 45' 7=55' 4<8=5B' -77' -' <D5' -"' J-<9B'
45' :8;=&5:' :-' :-95=' "55B5B

&B-"&<' =57' -' 4&?:5=7!' 5L 9&A< 5B' 4&:' ?&:59<J=5' C5:S
:5=:!' <"B' ?<B5' :<&=7-9' 45' -9 4' 5<!' 45' <" <' (<9&<
>-&">' B-6"' 6& 4' <==' 4<"B:' <:' 45' :8"' 65"' 8"B59' 45'
=&-9&I-"' 45"' 45' :4&;:@ A-?;<"&5:' 6595' A<==5B' -C59!'
&' 6<:' 7-8"B' 4<' 7-89' 4-8:<"B' ?5"' 4<B' J55"' D&==5B'
H9' B9-6"5B' 45' 6-8"B5B' 6595' "-' ?5" &-"5B!' J8'
k H8B5' ;594<;:' <' =5<:' <:' ?<"' ?-95' 45' ><==5-":'
;&59A5B' <"B' :4< 595B' 6595' =5<D&">' &"' <==' B&95A &-":!' 45'
B&>>&">' A8' 8;!' 45' ?<:' :';=&" 595B!' 45' :<&=:' -9"!' 98BS
B59:!' <9B:!' <"B' J-6:;9&:' :4-' <6<!' <"B' :&==' ?-95'
P"7-9 8"<5=!' ?-:' -7' 45' 6< 59$J8 :' B5: 9- 5B' 45'
P&5"' 4<B' J55"' D5;' 4<9B' <' 6-9D' 45' B<' J57-95' A=5<"&">'
P"B';-=&:4&">' 8;' 45' >8":' 49-8>4':-?5' <AA&B5"' 45'
B' ?&::5B' 45&9' 5C5"&">' ?5<=O' 45' 7&95$:4&;:' 4<B':;-&='
45&9' "&>4@:' 95:!' <"B' 49-8>4' 45' =-">' B<@:' B5:;59<5

@' -9=<:5' -' <=:&">4<?!' 8>' F$ R<B<'=<'>5" 5';-9'=<:' ?8A4<:';5"<:'
8*#'() W85':5' 4&A&`9-"'=<'"-A45' B5'<" 5:!'
K' <;<&"' 4&5' -' <=:&">4<?!' <8B<"B-' Y' 9<I<9' =<' <9 &==59&<' :&"'
B 8>' 5*. $!3 :5' =5:' 4<J59' B<B-' J<:&?5" -@_'
(' '=<' "-A45' W85BZ' ?8' 9<J<$ &9 (R/

!' !'

5"77<775?5" 4595 4<B J55"" -=5&:895 -:59C5 -8 7--B
mmm < 895 A-8=B 5"B895 "-? -95 -95?<&" 64595 45
R8 H-$ k H95 6<: A59 <&" 695AD! -< 5?; -95A-C59 <=<&:
8>8: = &"C& 5 <795:4 < <AD! <"B 45 7=5B <6< &" - 45
59?<" A5<"! <: A=-:5 - 45 6&"B <: 45&9 A9&;:=5B
: < 5 6-8=B J5<9! >5"59<== 79&>4 5B <"B B&:?< 5B H
45 A-"B& &-" - 64&A4 45 6595 95B8A5B 6<: &?;59S
75A = A-"R5A 895B J 45 ">=&:4 <B 45 7<&95: 65<S
459 A-?5 - 45&9 95=&57 4< ">=&:4 8>8: 5C59 D"56!
45&9 A956: A-8=B "- 4<C5 J55" &"B8A5B - 7<A5 &@<D5
<><&"! 64&=5 45 A-8=B :A<9A5= 4<C5 4<B 9-8"B :4-
=57 - -<B 5<A4 >8" &" 45 7=55 7-9 <: &">=5 B&:A4<9>5
-6<9B! 64- 4<B J55" ;95:5" < J8 4<=7 45 <A &-"!
&?<>&"5B 4< 45 @ 65&@5 : &== 6-"B5978= >95< <"B
: 9-"> H 9<D5 :<6 ?-95 A=5<9= 4< @ 45 B< :59$
C&A5 4<B ?8A4 <;;<==5B 45?!@ <"B 4< :-?5 B< :< =
=5<: 6-8=B 4<C5 - ;<::@J57-95 <9?< <"B &B-"&<
@ 6-8=B :4<D5 4<"B:@ &== & 6<: 4-8>4 A59 <&"
4< 45 6-8=B A-?5 J<AD &7 45 6595 "- ;89:85B!
<"B 4-8>4 J- 4 9<D5@: <"B -6<9B@: ?<><I&"5: 6595
<=?-: 5?; !<"B 45 J5=&5C5B 4-:5 -7 45 ;<"&<9B:
- J5 78==! 45 B5 59?&"5B@ - ;8 -" <J9<>!@ <"B @>&C5
@ A4<:5 <: 4-8>4 45 4<B 6<" 5B "- 4&"> @
48:! 645" ?-9"&">" -"A5 ?-95 B<6"5B -" 45 ?&:59S
<J=5 9?<B<! 45 <><&" :<6 -" 45&9 65< 459 J5<?!
<=?-: 6& 4&" A<""-" :4-! <"B A=&">&">" - 45?= =&D5
45&9 :4<B-6! 45 B95<B5B ">=&:4 7=55 6<: 45
5C5 -7 <695"A5@: B< ! 4&=&;@: ;<9-" :<&" ! 64-:5
;95A&-8: :4-8=B59 J-"5 45 4<B <BB5B - 45 95<:895: -7
45 :A89&<= 8 <695"A5! 4-8>4 45 ?&>4 :<C5
4&: 6-9:4&;;59:@:-8=:&" 45 - 459 6-9=B! :55?5B - 6<"
5& 459 ;-659 -9 6&== - <&B 45?& " 45 ;95:5" -

@ <99< &C5 -7 8<" B5 &A-?- _ .N$ 8> 3 _ = 44 5*. $!3
8'( ) O 9<D5 - <=:&">4<?! 8= K E
K -6<9B - -D&">4<?! 8= 8> 3 _ = 44 :!)

6&"B6<9B 6<: 45 5"5? ! -=556<9B <"B A=5<9 6& 4&" :&>4 45 :5<: 6595 J95<D&">- "= 45 5"B=5: :4-<=: 64&A4 79&">5 45 =-6 A-<: -7 -==<"B 45 =5<B ><C5 J< :5C5"= 7< 4-?:! <"B 7-9 5<A4 ?&=5 45 :<&=5B 45 B5; 4 >956 =5: :<"B =5::! <: 45 "-9 4$65: 6&"B 5B>5B 45?"5<959 -= 45 =&"5 -7 ?8BB 7-<? 9&;;=5B <: 45 6595! 45&9 ?<: :6-8=B "- J5<9 <6 5&>4 -7 :<&= :877&A&5" -= B9<6 45?"-77 -= <AD 6<:"&?;-::&J=5" 4595 6<: :&=9--?"-=65<9 9-8"B! J"-"= -=7<==&"-= 45 5"5? @: 4<"B:-9 C5" 895 <"-459 5"><>5?5" &=-:45 4<B "-"5 45&9 ?-:5L;59&5"A5B -77&A59: 6595 >-"5 5 #<=B5!<"B 9<"A&:A-=7 -=5B-=6595 ;9&:-"59:" &?5" 5= 4<B J55"=7=8">-"= 45 A-<: -7 =<"B59:" (-"=<B< =< B5<B < <=<&:" &5>-= =-95!45 <: &=&<"= B?&9<=! 4<B =-: 45<9 <"B "59C5 45?5"= >5"59<== 6595 :&AD 6& 4 B5:;-"B5"A !<"B <:5<S ?<"! <D5"= <7 596<9B:$&"= 95=<"B! :<&B &7 45 ">=&:4 4<B 4< B< -77595B -= J-<9B 45?! 45 6-8=B <== 4<C5 : 98AD H &B-"&<&"= 4&:5L 95?& :8??-"5B 45 -8">= (&>85=B5 W85"B-= -=<BC&:5 4&?

@ 5[-9 W85"B-!@ 45 5LA=<&?5B! QH64<<95 65 -=B-i @ 5<95 =-: _ 64<<95 65 -=B-i@

W85"B< ><C5 <J9<C5 ?<"@:<":659

@ 5 &5>-= =-95! <=D -7 J5&">= =-: '@ 45 :<&B @ 5 -89 LA5==5"A J&B ?5 -9B59 8;45 A<9 9&B>5: @H "=-;;-9 8"5 :4&7-7 6&"B A<?5 -= 45 8D5@:95=&57 5"!<:6<:7-"B= &?<>&"5B! J @ 45 -9B @ 6&">&"> :8BB5"= -= 45 5<:&:?--45B 45 :5<! <"B =&7 5B 4&?<6<79-?45 J<"D:-= 45 -;5"=6<59 45 ">=&:4 J5&"> "-=-">59 -= 6&"B6<9B 75== J<AD! <"B 45 ;<S "&<9B:! 6& 4:A<" :<&=! <"B 957& &">=<: 45 A-8=B 45&9

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*M 3
8= ' F+$
8 > 8 : ' N

:4< 595B : ;<9: <"B : < :! A9<6=5B -8 - 7 B<">59 45
4<B "-6 <7<&9 6&"B -95 89"- <=<&: 45 :5< 4<C&">
>-"5 B-6"! <9?< A-8=B A-?5 -8 - 7 8"D&9D! <"B :55S
&"> 45 5"5? 95 &9&">! &B-"&< ;<9 &<== 9<==&5B 4&:
:;&9& :<"B A<==5B < A-8"A&= -7 6<9 (<9 &"5I B5 5$
A<=B5! &5>- =-95I! =-"I-B< 5 C<! 6& 4 45 J5: -7
45 :<&=&"> ?<: 59:! <"B <?-"> 45? -A- <=B59-"!
64- 5==: 45 : -9 ! A<?5 -" J-<9B 45 <" Rs <9 &" <"B
&5>- =-95I <:D5B 7-9 45 -;&"&-": -7 <== -7 45"&! 64<
& 6-8=B J5 J5: - B- i &:-6" 45 ;9-J<J= &"B&A< 5B
&" 45 -"5 &" 64&A4 45 ;8 45 W85: &-" 4595 6<:
45 <= 59<< &C5 -7 < 95 89" &" - 45 4<""5= -9 < 95S
89" - ;<&" J 45 9D"5 :<"B 95=<"B 45 7&9: 6<: 45 6< -7 A-89<>5! 45 :5A-"B -7 &?<>&"5B :<75 !
<"B 45 A4-:5 45 =<: 45 ;9-8B <: &=&<" {;&9&
64&A4 4<B ;95:8?5B - ?< A4 45 6-9=B &" <9?: 6<:
J9-D5" B< 5 C< -9 <" W85"B- ?&>4 ;95759
B5< 4 - 64< 45 ?&>4 B55?: B&:4-"-89 45 A-?S
?-" ?5" 6-8=B "- 7<A5 < 95;5 & &-" -7 45 :A5"5 -7
45 ;95A5B&"> B<

<=B59-"! 64- 6<: <" 5L;59&5"A5B "<C&>< -9! :<&B
4< 45 65: -7 95=<"B 6<: B<">59-8:" J8 599-9
-7 45 ">=&:4 7=55 6<: ?-95 95<= 4<" 45 8":8J: <"S
&<= ;59&=: -7 <" 8" 9&5B :5< 5 6<: -C5998=5B 45
:8;;= -7 6< 59 &" 45 7=55 6<: 5L<?&"5B &" -! <"B <
:877&A&5" W8<" & - :8;;-9 =&75 6<: <==- 5B - 5<A4
;59:-"! <"B <== 4< B< <"B <== 45 "5L B< ! 45 9S
?<B< ;89:85B& : 5B&-8: 6< &" - 45 -9 4 5<

-6<9B! --! 6& 4 45 A4<">5 -7 6&"B A<==5B 4&:
-77&A59: <J-8 4&? 45 9&"A5 -7 <9?< B5;5"B5B 7-9
C4< 45 A<==5B (45 :&"56: -7 45 5" 59;9&:5!(-" 45
;<"&:4 9--;: 64&A4 &B-"&< 6<: J9&">&">! <"B 45
4<B ?<B5 8;' 4&: ?&"B B&: &"A = 4< A9-::' 45 6-8=B
"- 8"=5:: 45 9?<B< 95 89"5B - :8;;-9 4&? 8

45' ">=&:4' -"= ' D"56' 4<' 8"D&9D' 6<:' 8">8<9B5B!'
45' 6< 59' :?-- 4!' <"B' 45' B575"A5' -7' 45' A-8" 9 !'=57'
-' 45' &"A<;<A& ' -7' 5&A5: 59' ' 6<:' B5A&B5B' 4<'
-9B' 5"9 ' 5 ?-89@:' :W8<B9-"' ?8:'95 89"' -'&:';-:'
&"'@ 45' "<99-6':5<:@ 45'6<&5B' &=' B<9D' 4<' 45&9'
B5;<9 895' ?&>4' "-' J5' :55?' J' 45' ;<"&<9B:"' <"B'
J& 59=' <><&":' 45&9' 6&==!' 7-9' <"-459' <A&-"' 6<:' A-"S
7&B5" = '=--D5B' 7-9!' 4-8>4'@&"' <' ?<""59'7<?&:45B'7-9'
@6<"' -7' C&A 8<=:!@ 4&&$ 'C5::5=:' 89"5B' 9-8"B' -8 :&B5'
9&=' <"B' ?<B5' 45' J5:'-7' 45&9'6<'J<AD' -' 45' 9<&:'
"' <'756'4-89:' 45'8"A59 <&"' 65< 459'4<B'<><&"'A4<">5B'
45' 6595' ?5' J' <' 95 89"&">' :-8 4$65: 59' <"B' 6595'
B9&C5"'&" -' <96&A4" 45' 4<""5= 6<:' -"A5' ?-95' ?<B5'
&?;<::<J=5!' <"B' 45' <=<9?' -"' 45' :A-95' -7' <9?<' 6<:'
<' <"' 5"B

(5<" &?5' 9<D5' <"B' 45' -9B' B?&9<=!' 6& 4' "&"5 '
:<&=' <"B'7&C5' B< :@ ;9-C&:&-":!' A=8">' -' 45' 95<9' -7' 45'
5"5? ' @ 5'4<C5' 45'<9?' -7' ;<&"' J57-95'8:!@69-5'
9<D5' -' <=:&">4<?!'@<"B' ?5<"!' J' 45'>9<A5' -7' -B!'
@ -'695: =5' <'7<==' 6& 4'& ' 4595' 6<:' "5C59' <" 4&">'
@ ;=5<:5B' ?5' J5 59' 4<"' :55?>' 45' 5"5? '7= &">' 6& 4'
@<' :-8 459=' 6&"B' -' 45' "-9 46<9B:' -B' >9<"' 5'
@4<C5'<'>--B'5 5' -' 45' 8D5'-7' <9?<!'7-9' 6& 4' 45'
@>9<A5'-7' -B!'&7' 65' =&C5!' 'B-8J' "-' 595' &' J5' =-">'
@:-' -' 4<"B=5' 45' ?< 59' 6& 4' 45' 8D5'-7' &B-"&<'
@<:' 45' :4<==' 6&:4' 4&?:5=7' <' ' (<9' -9' <?-">'
@4&:'-9<">5' 955: @H

45' ;<"&<9B:!' 7&"B&">' 4<' 45' 6595' "-' <' <AD5B!'
H"B' -J:59C&">' 4<' 45' "8?J59' -7' 45&9' ;89:859:' 6<:'
HE5B8A5B!'7=< 595B' 45?:5=C5:' 4<' 45' ">=&:4' --' ?8:'
H<C5':877595B':5C595=' '&"' 45' <A&-"' -7' (-"B<!' <"B' 4<'
7' 45' 6595' <79<&B' 45?:5=C5:!' 45' 6595' <=:-' <"' -JR5A

#

*M33
8= F*$
8>8:A *+

-7 75<9H 45 &>"-?&" -7 95 89"&"> -; <&"! 4<C&"> <AA-?;=&:45B "-4&">! J5A<?5 ?-95 -JC&-8: 45 ?-95 & 6<: A-":&B595B! <"B &B-"&< -"A5 ?-95 J5><" -><459 8; 4&: A-89<>5! <"B -4&"D <><&" -7 9 &"> -95A-C59 <=<&: H 8 45 J=<AD :-8 4$65: 59 :A< 595B 4&:95C&C&"> : ;&9& : & 4-8 ;&=- :! &" < : 9<">5 :5<! 6& 4 45 <8 8?": -9?:;95?< 895= 8;-" 4&?! <"B 6& 4 "-79&5"B= ;-9 7-9 64&A4 -98"! 45 J5A<?5 8 $ 59= 8"?<""5B 45 C59 5=5?5" : 4<B 89"5B <><&": 4&?! 45 :;5A&<= ;959-><&C5 -7 45 =?&>4 ! <"B 45 A-8=B 4&"D -7 "-4&"> "-6 J8 -7 4<: 5"&"> 4-?5 J 45 -A5<" 9-<B! 64595! =5 45 B<">59: J5 64< 45 ?&>4 ! 4595 6595 "- ">=&:4 5"5?&5:&" 4&: ;<4

(#+!&! %&! #+! & * '6 ' $-!6 2! %&! #+! &)$)(. 2&!!1! #+! (.,)$+ $#),, %,,%8)(.)(!F-!"#'#)%(!9!&O * % * !(# #+'# #+!0 8%/,6 2!'& /- '(6 !(.'.! '(6 /(S '2,!'#%2!,)!9!'#+'# '$#)'($ 8%/,60)!,6 $% !'$),0 '(6 .% 2''H #% #+!)& %8("%/(#&0 8)#+ 6)$+%(%/& '(6 $+' * ! 4 '&6!&'(6 +'&6!& 2,!8 #+! 8)(6 '(6;'$ #+\ $!''&%$! #+!)& 6)$#&!$$!6 "%(6)#)%(2!"' * ! * %&!' --'S &!(# +! -/&$/)(. ,!!# 2!.'((%8 #% -'$$ 6&%8(!6 '(6 6&%8()(.2%6)!$ % * /,!$ '(6 +%&$!$,/(. %9!&#% $'9! #+! $"'(#0 8'#!& "'$H$ %&!' #+'(%(!-%%&" "&)-S -,!6 $+)- 6&%--!6 2!+)(6 '$ +!& $-'&$ $('--!6 %& #+! 9'#!& * '6!)#$ 8'O #+&%/.+ +!& 9%/(6!6 $!' * $)(#+! $#&')()(. $!'$ +! -'()'&6$ 0 $#&)"H!( )# 9'$ (% G

5=<A&-" B5 =- :8A5B&B- \ =< 95<= 9?<B< :5A-"B "<99< &C5! "- <=B59-"@:! J8 <=:-J <"5 5S 6& "5::: 6<: 985 4< 45 ">=&:4 : &=A-":&B595B 45 ;<"&<9B:7-9S ?&B<J=5 59 (<5: @:"<C !@:< :< "" ">=&:4 -77&A59! 7--=-65B 45?' <=6< : 4<9B! J8 B89: "- J-<9B 45?! J5A<8:5 45 <95 :- 4&>4 J8&= :-<:7-9 -7 -89: 6<: 9-8J=5B - <D5 -"5 -7 45&9 >95< 5: <9?<B<:< 45 7&>4 -" (-"B< @_ =44 *8I 8'() 8> F$*F

U Q =-: ! 5:;59<"B- J85" &5?;-! :5 95:-=C&Z B5 C-=C59 "85: 9< 9?<B< :-J95 5= 5"5?&>- -?<9:5 Y :8 ;85: -! C-=C&5"B-=< C85= < B5= <"<= @

K -6<9B -<=:&">4<?! 8>$ 3$*3 _ =44 5*. $!3

;=<&"!6& 4'<'6-"B5978='75<9!@ ?<B5'"-'<5?;'-':8AS
A-89' 45&9' A-":-9:!' J8' ;<::5B'-"'=5<C&">'45?'-'
7-8"B59

4595' 4<B' J55"' :-?5' 8"5<:&"5::' <J-8' A-=<"B'
-9B'(<L65=='4<B'J55"'<'&:J-"'&"'45':;9&">!'<"B'&'
k GHk' :8;;-:5B' 4<'45'?&>4';-::&J='J5'?<D&">'7-9'
45'-94'8'45';<::5B'-"'6&4-8'<5?;&">'-'
5"59'&''<"B$ 4595':55?5B'"-';9-J<J&=&'4<'&7'45'
=5'45'-94'5:A<;5'45?'45'6-8=B'9'7-9'<"'-459'
A-A4'4<9J-89''6<:'"-6'J=-6&">'<'><=5'45'
">=&:4'4<B'J8'4955'B<:@;9-C&:&-":'=57!'<"B'-'
7-==-6'789 459':-'&==';9-C&B5B!'6&4'45';9-:;5A'-7'<
A-"&"8&"> :-9?!'6<:'-'98"'&"-'"55B=5::'B<">59
9<D5'4-8>4'4<'45'9?<B<'6-8=B'?<D5'7-9'5"S
?<9D!'957&'&"'45'<5><!'<"B'95 89"'<'&:=5&:895'
6-';&""<A5:'6595'B5<A45B'-'6<A4'&:'A-89:5!'<"B'
:5"B&">'<'5L;95::'-'-"B-"'79-?'8"J<9!'-'J5>'4<'
7--B'<"B'<?8"&&-"'?&>4'J5'B&:;<A45B'-'(<9><5'
7-9'45?!'45'89"5B'J<AD'J57-95'45'6595'-C59<D5"'
'7<?&"5''6<:'<:-95'B&:<;;-&"?5"!'7-9'45'
D"56'4<!'4<B'45'J55"'7<&9='9;-C&B5B!'"-'<;<"&:4'
:4&;'6-8=B'4<C5'A<99&5B'4-?5'45'<=5'-7'45'9?<B<@:'
B&:A-?7&895'45'4-;5'"-6'6<:'4<'45'5=5?5":'
?&>4'A-?;=5 5'45'6-9D'-7'45'>8":'@'45'=-">'7-8=
@65<459'?&>4'J5'7-==-65B'J'<'=<59':8??59@H 8'
7'45'><=5:'A-"&"85B'-'J=-6'79-?'45':-8 4$65:!'&'
/#9<'8"A59 <&"'645 459!'-9"'<"B'A9&;;=5B'<:'45'6595!'
45'6-8=B'J5'<J=5'-'75 A4'5"?<9D'@45&9'>95<'
@:4&;:'6595':-'=&>4@4<'5C5"'645"':-8"B'<"B'&"'7<&9'
=5<459!'Q 45'A-8=B'4<9B='J5<9'45&9':<&=:@45'
A=&?<5'-7'45'-94'5<'6<:'<=:-'=&D5='-'9'45'
<&=-9:'64-'4<B'J55"'9<&"5B'&"'=-659'=<&8B5:!'<"B'
&5'-;&"&-"'&"'45'">=&:4'7=55!':-8"B='7-9?5B'<:'&

;9-C5B! C<: 4< ? <" -7 45?6-8=B "5C59 :55 ;<&"
<>><&" @H

8"">59! 4-65C59! 6<: <" 5"5? 4< ! 6-8=B "- 7= -9?-9 "- : -9?! 8"=5::
-6<9B A-8=B 95A-C59 45 4<?5:! 4&:A<:5 6-8=B J5 <: J<B <: &B-"&<@: <"B 45 J5< J<AD &" 45 7<A5 -7 45 ><=5! <6D&":@: :;<9:<"B A-9B<>5 : <"B&">;9--7<>><&": <==9&<=: 77 45 -9S 7-=D A-<: ! 45 HC&"B J5A<?5 :-789&-8: 4< 45 7=55 6<: :A< 595B! -6<9B! 6& 4 45 =<9>5: -7 45 :4&;:! 95<A45B (<9>< 5 <: 45 &" 5"B5B 459: 6595 B9&C5" 8>*+$.+ &" - <96&A4! <"B 95R-&"5B 4&?6 45" 45 65< 459 ?-K B59< 5B

45 >95< 5: :59C&A5 5C59 B-"5 J <" ">=&:4 7=55 4<B J55" 48: :8AA5::78== <AA-?;=&:45B J ?5" C4-:5 6<>5: 4<B "- J55";<&B 79-? 45 &?5 -7 45&9 5"><>5S ?5" ! 4<=7$: <9C5B! 6& 4E 45&9 A=- 45: &" 9<>: <"B 7<==&">-77 45&9 J<AD:!H <"B :-& &==$7-8"B &" 45 "5A5::<9&5: -7 6<9 4< 45 4<B 5D5B -8 45&9 <? ?8"& &-" J 64< 45 A-8=B <D5 &" <A &-" 79-? 45 5"5? 4&?:5=7 " 45 B5:&95 7-9 C&A -9 45 4<B "- : < 5B 7-9 45 :;-&= -7 <" -7 45 :4&;: 4< 45 =<?5B @H 4595 6<: "- ;9&I5$?-"5 A-?&">- 45?- 956<9B 45&9 C<=-89 45&9 -6" A-8" 9 6<: 45 ;9&I5 7-9 64&A4 45 4<B 7-8>4 <"B A-"W8595B 45 4<B 5<9"5B! &7 5C59 ">S =&:4?5" 4<B 5<9"5B <" 64595! 45 4&>45: 4-"-89 <"B 45 4&>45: 95A-?;5":5 64&A4 45 -C59"?5" A-8=B J5: -6

45 956<9B 64&A4 &" 7<A 45 95A5&C5B 6&== J5 C59 J9&57= -=B --B 4<B J55";9-C&B5B! <"B 6<: :5" B-6" 45 9R&C59 -" 45 = 4$ = 4 -7 8>8: 45 -"5

@ 5""59 - <=:&">4<?! 8> 1$ *1 _ = 44 5*. $!3
K E 6595 ?<9C5==-8: >--B <4-8:<"B ;-8"B:@ 6-9 4 -7 4-:5! B-8J=5 :! :4-5:! :4&&&:! <"B :8A4 =&D5 6595 :5" B-6" 6& 4 <== 5L;5B&-" 5=:5 &" <C59 :4-9 &?5 =--D -:55 ?-: -7 45 ?<9&"59: >- "<D5B@_ *-')$*' -7 832 8> *+$.+$ =44 :!)
O 4& 5 - <=:&">4<?! 8> 3$ 8! < =44 :!)

?-" 4@:' C&A 8<=:' <D5"' &"' <' = ?-8 4'-"' 45' .F9B'-7
8"5!' 4<B' J55"': 95 A45B'-C59':5C5"' 655D:' 45' 4955' $$$$$$
B< :@ 9< &-":' ? 4' 64&A4' 45' 7=55' 4<B' =57' 45' -9 4' 8>' *+$.+
4<B' J55"' ?<B5' -' :59C5' 7-9' 5&>4' B< :' " &95' A956:'
4<B' 48:' J55"' <J:-=8 5=' 7<?&:4&">!' ! 45' "5L' ;-&" '
-' J5' B5 59?&"5B' 6<:!' &7' 45' :4&;:' 6595' -' J5' ;<&B'-77!'
-9' 6595' -' 95?<&"' &"' A-??&::&-" ' @' 895' J&"B!' :895'
@ 7&"B!@ 6<:' 45' -;&"&-"' -7' -9B' -6<9B' ' 6<:' : &=='
;-::&J=5' 4<' 45' 9?<B<' ?&>4' 95 89" ' @ ' D&">B-?'
@ 6<:'<'>95<' 6<>59!'<"B':5A89& ' 6<:'B<">59-8:!'<:' 45 '
@ 6-8=B' 4<C5' 7-8"B' 4<B' "-' -B' J55"' 45&9' 79&5"B @H
9<D5' Q 6-8=B' "-' <BC&:5' 459' (<R5: ' -' 4<I<9B' <'
@ D&">B-?' 6& 4':<C&">'<'=& =5' A4<9>5 @ @ 45' 9&"A5'-7'
@ <9?<!@ 45' :<&B!' @ 6<:' <' J5<9'9-JJ5B'-7' 4&:' 645=;:'
@ <"B' 7-9' 4&:' A95B& @:' :<D5!' J5&">' :-' >--B' <' :-=B&59!
@ 6-8=B' 9 ' -' B-' :-?5 4&"> @H 45' %855"!' -"' 45'
-459' 4<"B!' 4-8>4' -7' "-4&">' J8' 45' 5L;5":5!' <"B'
H9<:' -"=' 5<>59' -' :-;' 45' B9<&"' -"' 45' 5LA45W859'
<' 45' 5<9=&5:' ;-::&J=5' ?-?5" ' 45' W85:&-"' 6<:'
<":6595B!' <"B' 45' 8"A59 <&" ' 6<:' 5"B5B!' J' A<8:5:'
&"B5;5"B5" ' -7' 45' 6&==' 5& 459' -7' 459:5=7' -9' 459' <BC&:59:
45' : 9<&"' -7' 45' =<:' 756' ?-" 4:' 6<:' <D5"' -77!' <"B'
&4'&' 45' :;89' -' 45' 45<9:' <"B' :;&9&:' -7' 45' 5L$'
=&<8:5B':5<?5"' C5"' <' = ?-8 4' :4-9' 7--B' <"B'
;-&:-"-8:' B9&"D' 4<B' J9-8>4' B :5" 59' <?-">' 45?'
<"B'&"' -"5' C5::5=!' @ 45' =&I<J5 4' -"<:!' 64&A4'4<B' B-"5'
@ <:' C5=' <:' <" ' :4&;' &"' <" ' :59C&A5' 4<B' 5C59' B-"5!@
4595' 4<B' J55"' Q' B<">59-8:' &"75A &-"' 79-?' 45' J5$'
@ >&""&"> @ <" ' -7'7--B!' 6<" ' -7' A=-45:!' 6<" ' -7' 45'
&K5=&57!' 64&A4' &7' 45' 4<B' J55"' ;<&B' 45&9' m H<>5:' 45'
4&&>4' 4<C5' ;9-C&B5B' 7-9' 45?:5=C5::!' 4<B' <>>9<C< 5B'
45' 5"B5"A&5:' -' B&:5<:5!' <"B' <' 79&>4 78=' ?-9 <=& ' "-6'
H5' &"' 49-8>4' 45' 5" &95' 7=55' -< =-<B:' -7' ;--9

K -6<9B' -' <=:&8>4<?!' 8> V 9<=&5' -' <=:&">4<?!' 8>' 3$
> _ =44' 5*. $!3

G

*M33
8>' K%DKR

75==-6:' 6595' A<99&5B' -"' :4-95' < ' (<9>< 5!' <"B' 6595' =<&B' B-6"' -' B&5' &"' 45' : 955 :!' 4595' J5&">' "-' ;=<A5' &"' 45' -6"' -' 95A5&C5' 45? 45' -77&A59:' B&B' 64< ' 45 ' A-8=B ' -6<9B:' <"B' 9<D5:' ;?:5:' 6595' 7955= ' -;5"5B_ :-?5' :-9 ' -7' :45= 59' 6<:' ;9-C&B5B' < ' =<: ' &"! J<9":' <"B' -8 4-8:5:" J8 ' 45' <::&: <"A5' 64&A4' 45 ' A-8=B' ;9-C&B5' -8 ' -7' 45&9' ;59:-"<' 95:-89A5:' 6<:' <= -S >5 459' &"<B5W8< 5 ' ' 6-8=B' >9&5C5' <" ' ?<":' 45<9 !' 69- 5' -9B' -6<9B!' -' :55' ?5"' 64-' 4<B' :59C5B' :-' C<=&<" = ' -' B&5' :-' ?&:59<J= H

45' 75<9' -7' <9?<:' A-?&">' :--"' B&5B' <6< ' "' <' 756' B< :' "56:' A<?5' 4< ' 45' A<?;' < ' 8"D&9D' 6<:' J9-D5"' 8;!' 45' : -95:' <D5"' -8 ' -7' 45' 9<":;-9 :!' <"B' 45' :<&=-9:' ;<&B' -77 ' 45' ;&""<A5:' :5" ' &"' ;89:8& ' -7' 45' &?<B<' 95 89"5B' 6& 4' A=5<9' &B&">:' 4< ' & ' 4<B' ;<::5B' 65: 6<9B' 9-8"B' 45' 9D"5 :' J8 ' 45' 4<C-A' <?-">' 45' J9<C5' ?5"' 64-' 4<B' B9&C5"' & ' 79-?' 45' :4-95:' -7' ">=<"B' J5A<?5' B<&= ' ?-95' <"B' ?-95' 599&J=5 ' 45 ' :&AD5"5B' -"5' B< '' 45 ' B&5B' 45' "5L ' "' 45' J< =5' J57-95' 9<C5=&"5:' "-' :&L ' &"' <==' 4<B' J55"' D&==5B ' J57-95' <' ?-" 4' 6<:' -8 !' 4595' 6<:' 4<9B= ' <' :4&;' 64&A4' 4<B' 5"-8>4' ?5"' =57 ' -' 65&>4' 45' <"A4-9: H' ' 6<:' A4<9<A 59&: &A' -7' 45' 45=;=5::"5::' < ' 45<B$W8<9 59 ' ;9-B8A5B' J ' =&I<J5 4@:' 4<9B"5::!' 4< !'"- 6& 4: <"B&">' 45' B&:-9B59' 6<:' 9<A5B' B57&"& 5= ' -' 45' ;-&:-"-8:' J559!' & ' A-" &"85B' -' J5' :59C5B' -8 ' - 4&">' J5 59' 6<:' <==-65B' &==' & ' 6<:' A-":8?5B O' 45' :&AD' 95W8&95B' 795:4' ?5< ' <"B' C5>5 <J=5:' & 4&"' <' 756' 4-89:' < ' 45 ' 6595' -7' -"B-"! 45 ' A-" &"85B' -' J5' B&5 5B' 6& 4' 45' 8:8<' :<= ' J557' <"B' 7&:4 ' 45' ?5"' 5L;5A 5B' 4< !' < ' =5<: !' <7 59' :8A4' <' :59C&A5' 45 ' 6-8=B' J5' ;<&B' 45&9' <>5:' &"' 78== ' 45' %855"' 6<:' A<C&==&">' -C59' 45

H -6<9B' -' "9>4=5 !' 8>!' *+$' . .$ 5; ' * _ = 44 P :!)
+ _ = 44 ' 5.3 $! K -6<9B' -' ',$)(.+' * ' 8>
K -6<9B' -' 45' -8"A&=!' 8> .2$ 5; !' M _ = 44 ' :!)

<AA-8" :!' <"B' 6-8=B' >&C5' "-' -9B59:' 7-9' ?-"5 ' &==' :45' '
4<B' B5?<"B5B' 45' ?5<"&">' -7' 5C59 ' ;5"" ' 4<' :45'
6<:' A4<9>5B ' ' 6<:' 5C5"' "5A5::<& ' 7-9' &9' -4"'
<6D&":' -' 95?&"B' 45' -C59"?5" ' 4<' 45' ;<' -7' 5;5?J69
4-:5' 64-' B&5B' 6<:' : &==' B85' -' 45&9' 95=< &C5: H
9-?' 45' :5C595' "< 895' -7' 45' :59C&A5!' -9B' -6<9B'
4<B' J55"' -J=&>5B' -' <BB' -' 45' "8?J59' -7' -77&A59:' 5'
6<:' A4<==5">5B' 7-9' 45' 5L 9<' ;<!' <"B' 6<:' -J=&>5B' -'
;5 & &-"' 7-9' :-?5' :?<==' <::&: <"A5' 79-?' 45' %855"' &"'
B579< &">' & ' 4&?:5=7 ' (45' ?< 59'&:' "-'>95< !@45' :<&B
(&C5' 48"B95B' ;-8"B:!' 6& 4' 45' 45=;' -7' ? ' -6"' ;89:5!
(6&==' B-' & ' -65C59' & ' 7<==' -8 !' ' ?8:' :55' 45?' ;<&B @H
4595' 4<B' J55"' 5L;5":5:' &"' 45' 7=55 ' 64&A4' A-8=B' "-'
J5' <C-&B5B!' <"B' &"' 45' B5: & 8 &-"' &"' 64&A4' 45' 4<B' J55"'
=57 !' -6<9B' 4<B' 8:5B' 4955' 4-8:<"B' ;&: -=5:' -8 ' -7' 45'
95<:895' <D5"' &"' 45' :4&;' -7' 5B9-' B5' #<=B5I ' -' D55"'
<"' <AA-8" ' 6<:' 5L<A 5B' -7' 4&?' 4<' 45' -9B' B?&9<='
-7' ">=<"B!' 45' A-"W859-9' -7' 45' 9?<B<!' 4<B' -' B575"B'
J&?:5=7' <><&":' ' <' A4<9>5' -7' ;5A8=< &-"' (' B&B' <D5'
(45?!@45' 69-5' -' <=:&">4<?!' (<:' ' -=B' -8' ' 6-8=B
(7-9!' J ' 5:8:!' ' 4<B' "-' 4955' ;-8"B:'=57 '&"' 45' 6-9=B!
(<"B' 4<C5' "-' <" 4&">' A-8=B' >5 ' ?-"5 ' &"' -"B-"_
(? ' ;=< 5' 6<:' >-"5' J57-95 ' 8 ' ' 6&==' 95;< ' & ' 6& 4&"'
(5"' B< :' <7 59' ? ' A-?&">' 4-?5 ' ' ;9< ' -8' =5 ' 459'
((<R5: 'D"-6':-' <"B!' J ' 45' -9B' -B' -7' 5<C5"!' '
(4<B' "-' -"5' A9-6"' ?-95!' <"B' 4<B' & ' "-' J55"' ?595'
H"5A5::& ' ' 6-8=B' "-' 4<C5' -8A45B' -"5' J8 ' &7' ' 4<B'
H"-' :-?5' -' 4<C5' J5: -65B' 8;-"' :-?5' ;--9' ?&:59<J=5'
K?5"!' 'H:4-8=B' 4<C5' 6&:45B' ? :5=7' -8 ' -7' 45' 6-9=B (K

E (-89' -9B:4&;' ?< ' 4&"D' 4<' A4<9>5 (< 8'V* !$('$*' -7= 2' 8>'
'B5< 4!' B&:A4<9>&">' -7':&AD!' \A' \A' <2$ 5; ' M' =44 '5*. $!3
-?54&">' ?< ' J5' :;<95B' &"' 45' K -6<9B' -' 89>4=5 !' 8>' .2$'
>5"59<=' ;< ' 4-:5' 4<' B&5' 45&9' 5; ' M_ =44 ' :!)
79&5"B:' 95W8&95' 45&9' ;< ' -9' 4-:5' K =-6<9B' -' <=:&">4<?!' 8>'
s94&A4' <95' B&:A4<9>5B!' 65' <D5' 8;' .',$ 5; ' 2_ =44 ' :!)
795:4' ?5"!' 64&A4' J955B:' <' 7<9' >95< 59

#

*M33 8>8: $ 5; 5?J59

45 6-9: ? 5<""5::6<:RH5 -A-?5 :89A4<9>5 <;;5<95B &" 45 <AA-8" : -7 :&L 48"B95B <"B 65" ;-8"B:! 7-9 5L 9<-9B&"<& D&"B: -7C&A 8<=! 6&"5! A&B59! :8><9! -&=! <"B 795:4 7&:4!B&: 9&J8 5B <?-"> 45 :4&;: 64&=5 < = ?-8 4! J 45 -9B59 -7 -6<9B <"B 9<D5 45 -9B B?&&E<= 5L;=<&"5B 4< <75 6 B5=&A<A&5: 4<B J55"" 4-8>4 "5A5::<9 7-9 45 95=&57 -7 ?5"" 64-! J5&">:&AD -9 6-8"B5B! ?&>4 J5 8"<J=5 -B&>5: :<= ?5< 5 <B?& 5B 4< 45 4<B B-"5 64< 6<:8"8:8<=" 45 :<&B 4< 45 4<B ?<B5 45 <==-6<"A5: B&"95><9B -7 45 >95< "5::-7 45 :59C&A5! 7-9 45 5"A-89<>5?5" -7 4-:5 -"" 64-:5 7-96<9B"5::<"B A-89<>5 :8AA5::B5;5"B5B 5 ?&>4 4<C5 <BB5B 4< 45&9=5>& &?< 5 7--B 4<B J55"" : -=5"" 79-? 45? J 45 %855"@: -6"" "5>=5A 5 ;5 & &-"5B 48?J= 4< :45 6-8=B ;<::45 A4<9>5 &: 8"A59 <&"" 645 459 :45 A-":5" 5B -9 "- &: A59S <&"" 4< <7 89 459 :8? 7-9 45 :<?5 ;89;-:5 -9B -6<9B 75= -J=&>5B -<D5 8;-"" 4&?:5=7 5 : 98AD 45 5" 9 -8 -7 4&: <AA-8" J--D 6&== ? :5=7 ? <D5 :< &:7<A &-"" <: 65== <: ? < !45 :<&B! :-4< 459 (<R5: :4<== "- J5 A4<9>5B 6& 4<=H

-9B -6<9B! ;594<;:! <: <" -J=5?<"" 64-:5 7&& 459 4<B 95A5&C5B =<9>5 J5"57<A &-":79-? 45 9-6"! <"B -64-? 45 %855"" <7 596<9B: 6<: ?-B59< 5= =&J59<=! ?&>4 J5 5L;5A 5B -A-" 9&J8 5 < < &?5 -7 B&7&&A8= -8 -7 4&: ;9&C< 5 95:-89A5: 45 :<?5 5LA8:5 6&== "- A-C59 $ 45 95< ?5" -7 &9 -4"" <6D&":! 64- -65B "- 4&">" -<" A9-6"5B 45<B! <"B 6<: 45 <9A4&S 5A -7 4&: -6"" 7-9 8"5: <6D&":4<B "- -"= J55"" < 45 45<B -7 45 B-AD <9B:! J8 45 4<B J55"" 45 ;59:-"" 5? ;=- 5B &"" A-==5A &">" 45 :4&;: A-?;<"&5:! <"B <7 596<9B: &"" :5 =&">" 45 6<>5: 6& 4 45? -

">=&:4' C5::5=:' 5C59' :<&=5B' -8 ' -7' ; -9 ' &"' J5 59' A-"B&$
&-"' -' ">=&:4' :<&=-9:' 5C59' B&B' 45&9' B8 ' J5 59 ' $$$$$
8 ' =&I<J5 4' 4<B' A4<">5B' 459' ?&"B' :-' -7 5"' &"' 45' 5;5?J9
:;9&">!' 5"><>&">' :5<?5"' <"B' 45"' B&:?&::&">' 45?!' <"B'
45"' 5"><>&">' - 459:!' 4< !' J5 655"' A4<9>5:' <"B' B&:S
A4<9>5:!' 45' <AA-8" :' 4<B' "< 89<== ' >9-6"' &" 9&A< 5 '
<6D&":' 6-9D5B' 4<9B' -' A=5<9' 45?!' <"B' :;5" ' 4&:' -6"'
7-9 8"5' 7955= ' -' ?<D5' 45' 7&>895:' :< &:7<A -9 " J8 ' :45!'
64-' 4<B' J55"' 459:5=7' 45' A<8:5' -7' 45' A-"78:&-"!' &":&: 5B'
-"' <"' 5L<A "5::' -7' : < 5?5" ' 64&A4' & ' 6<:' B&77&A8=' &7'
"-' &?;-::&J=5' -' >&C5'' <"B' <6D&":!' &"' <' ;5 & &-"' &"'
64&A4' 45' B5:A9&J5B' 4&?:5=7' <:' < 98&"5B' ?<"!' :85B' 7-9' <
5<9@:' 95:;& 5' -' B&:5" <">=5' 45' B&:-9B59 H
45' 6-' : < 5:?5"' 7<95B' "-' J5 59' 64-' 4<B' 789"&:45B'
45' J9<&"' -7' ">=<"B!' 64&=5' 45' 7=55 ' 4<B' J55"' & :' 9&>4 '
<9?' 89>4=5 ' <"B' <=:&">4<?' 6595' 45' :-8=' -7' 45'
;-=&A ' 64&A4' 4<B' ;=<A5B' =&I<J5 4' &"' 9&8?;4' < ' =<: '
<' 45' 45<B' -7' 9- 5: <"' ' 89-;5' -9' 45?!'&"' 45' 4-89'
-7' C&A -9 !' 4595' 6<:' -"= ' <J8:5!' :A< 595B' 7955= ' <"B' &"'
<==' ;95:5"A5:' 45 ' 64-' 4<B' "5C59' 6<C595B!' 64-' 4<B'
:5<B&= ' <BC&:5B' <' :&">=5' A-89:5!' 64-' 4<B' "5C59' A5<:5B'
-' 89>5' 45' "5A5::& ' -7';9-C&B&">' &"' &?5' 7-9' 5L&>5"A&5:'
4&A4' 45 ' D"56' -' J5' <;;9-<A4&">_ 45 ' & ' 6<:' 64-'
595' ?<B5' 95:;-":&J=5' 7-9' 64< ' 4<B' J55"' 6<" &">' &"' 45'
59C&A5!' <"B' 7-9' 45' :4&7 :' -7' ;89;-:5' 64&A4' 4<B' J55"'
45' A<8:5' -7' 45' "5>=5A ' @ ==' &995:-=8 &-":' <"B' =<AD:!@
5A&=' 69-5' -' <=:&">4<?!' @<95' 49-6"' 8;-"' 8:' 6-'
@&"' <==' 459' :;55A45:' -' 5C59 J-B ' 45' 69-">' &:' &"S
-=59<J=5@H
8 ' B&B' =&I<J5 4' :4-6' "-' A-":A&-8:"5::' -7' 45'
>=-9&-8:' 6-9D' 64&A4' 4<B' J55"' B-"5' 7-9' 459:5=7' <"B' 7-9'
45' A-??-"65<=4i' <:' 4595' "-' -"5' -7' 4-:5' &==8:$

K 5&&-"' -7' &9' -4"' <6D&":!' K 89>4=5 ' -' <=:&">4<?!' -C'
/00' *1&*1 ' ' $ % @ &= '

9&-8: :-": -7 ">=<"B -"6 4-?<: 4&: -C595&>": :45
$$$$$$ A-"75995B 45 4-"-89: 6 4&A4 6595 B85 79-?4&: A-8" 9 @:
5;5?J59 >9< & 8B5i 6<: "- : -<= ->5 459 45 "< &-"D"56
=&I<J5 4 -"= J 459 ;8J=&A <A : 45 4<9<::5B 4-89:
-7 459 ?&"&: 59:! 45 : 98>>=5: J 64&A4 45 ?5<:895:
6595 7-9A5B -8 -7 459 J 64&A4 ">=<"B 4<B J55"@
J<95= :<C5B! 45:5 -7 A-89:5 6595 8"95C5<=5B -45
6-9=B!<"B <= ->5 459 8"B95<? -7 45 ?&:59 -7 45
B &">:5<?5"6<: :5 B-6"-45 4<"B -7 -B -9 -45
&"A<;<A& -7 &"759&-9 -77&A59: -459 ;5-;=5 :45 6<:
<=6< :;=<8:&J=5 <=6< : -<;;5<9<"A5 79<"D <"B 7955$
:;-D5" 45 6<: "-6 45 459-&"5 -7 45 4-89 45
695< 4 -7 C&A -9 64&A4 459 :8JR5A :4<B 6-" 7-9 459
45 =<&B <45 755 -7 45&9 -C595&>" <"B 4< -C5S
95&>"6& 4>9<A&-8: A-"B5:A5":&-"!J5: -65B &8;-"459
5&A5: 59 5&A5: 59 4<B :<C5B ">=<"B!<"B ">=<"B
6<: 95W8&95B -B-4-?<>5 -45 J9<C5: -7 459 :-": 45 C&:& 5B 45 7<C-895B <9= < 45 A<?; < &=J89 $
45 9-B5 <=-"> 45 =&"5: -7 459 <9? 6& 4 5&A5: 59 < 459 :&B5 :A< 59&"> >9<A&-8: :;55A45: 64&A4 "-"5 J5 59
8"B59: --B 4-6 -?<D5 4<"":45!<"B 45"!<: :45 4<B
>&C5" 45 >95< :5<= -459 :5A-"B 7<C-89& 5! 459 @ (8 $
@ -"!@ &9 49&: -;459 < -"!-" 5&A5: 59 :45 ?5B&S
< 5B A-"7599&">45 7<9 ?-95 :59&-8: -7& A5-7 &58 5"<" $
0V 5"59<= -7 ">=<"B <"B 95=<"B 45 =5 59: ;<5" 6595 B9<6"-8 !<"B 6-8=B 4<C5 J55"&::85B!:- <?B5"
:< :! J8 7-9 45 95?-": 9<"A5: -7 5A&= <"B < -"!
<"B 7-9?&:>&C&">: 5LA& 5B < 45=<: ?-?5" &"459:5=7!
-" 45 ;98B5"A5 -7 45 6&=B <A 64&A4 :45 6<: ?5B&S
< &"> H

59 7-"B"5::= &D5= 5"-8>4 6-8=B 4<C5 A<99&5B 45
B< &" 45 5"B! 4<B "- 45 <9=! < 45 ?-?5" -7 4&:
<" &A&;< 5B >95< "5::! :8BB5"= B&5B A<"B<= -7 A-89:5

@ <?B5"

:8>>5: 5B' ;-&:-"' ?-95'<8 45" &A' 5C&B5"A5' :< :' =R<' 45' 6<:' A<99&5B'-77' J ' <'75C59'-"'4&:' 6< ' -' 5"&=6-9 4' $$$$$$
">=<"B' 6<:' --' ?8A4'-AA8;&5B' 6& 4' 4&?' 64&=5' <=&C5!' :5; &?J5&
<"B' ">=&:4' 4&: -9 ' ?< 'A8 ' :4-9' 4&:' 5;& <;4' 4-8>4'
45' 6<:' A95B& 5B' 6& 4' <' 4-8:<"B' A9&?5:!' 4&:' 95<=' >8&='
6<:' ;9-J<J= '=&?& 5B' -' A-""&C<"A5' <7 59' 45' 5C5" ' <'
-"5' -"=' -7' :59&-8:' ?<>"& 8B5' <B ' -J59' 8B=5'
6<:' 8"B-8J 5B=' ?89B595B' J ' -7\A&-8:' -9' <?J& &-8:'
:59C<" :' -'A=5<9'<' 6< '7-9'4&?' -' 45' 9-6"' <"B'J- 4'
45' <"B' 45' %855"' 6595' --' 4<;;' &"' 45' ;-::&J&=& '
64&A4'4<B' 48:' J55"' -;5"5B' -' 45?' -' &":&:' -"' <
:9&A' &"C5:&>< &-"' 45 ' B&B' "-' -J <&"' 45&9' B5:&95:!'
<"B' J=--B:<&":' 79-?' 45' 8?"-9' 9<>5B' A=8">' -' 45'
:D&9 :'-7' J- 4' -7' 45?' =&I<J5 4' 8"B-8J 5B=' =-C5B'
5&A5:59' = 4-8>4'4&:' A=<&?:' -'<775A &-"'95<A45B' "-'
789 459' 4<"'<'4<"B:-?5'7<A5!'45'6<:' 45' -"=' ;59:-"'7-9'
64-?' :J5' 95<==' A<95B!' <"B' ?<" ' -7' 45' -J=&W8& &5:' -7'
459' A4<9<A 59' ?<' J5' 9<A5B' -'459' B&:<;;-&" ?5" ' 8'
&' &:' -' ?&:95<B' =&I<J5 4' -' :8;;-:5' 4<' 459' 95=< &-":'
6& 4' 4&?' 6595' - 459' 4<"' 4-:5' 64&A4' <95' 5A4"&A<==' '
A<==5B' 4-"-89<J=5' 7 59'<'J9&57'<=<9?' <' 45' J5>&""&">'
-7' 459' 95&>"!' "-'&" 5==&>5" '=<R8"<"'&"' 89-;5' :8:;5A 5B'
4<' 4595' 6<:' <" 4&">' :59&-8:= '69-">' J5 655"' 45?
'<":6595B' 45' ;89;-:5'-7' 45' 5:8& :' -':A< 59' A4<9>5:'
-7' :5L8<=' B5=&"W85"A' <><&":' <' 6-?<"' 64-?' 45' 4<B'
7<&=5B' -' ?89B59' -' B&9' : &AD:' ?-95' 95<B&=' 4<"'<"'
<AA8:<&-"' -7' 4&:' 9D&"B' 645"' J-=B=' <"B' ;-:& &C5=' &"S
:&: 5B' -"!' <"B' 45' 6&:45B' -' ?<D5' 459' 4< 578=' -' 45'
sC-9=B' 8' =&I<J5 4' 6<:' "-' <' ;59:-"' 64-' 6-8=B'
4<C5' 75=' 5?;<&-":' -'8"A4<:& ' 899-8"B5B' <:':45'
C<:' J ' <' 4-8:<"B' ?<=&>"<"' 5 5:!' :45' A-8=B' "-' 4<C5'
5:A<;5B' B5 5A &-"' 4<B' :45' 95<==' A-?? & 5B' 459:5=7!' <"B'
4<' 45' 5C&B5"A5' <><&":' 459' 4<:' -' J5'=--D5B' 7-9' &"' 45
T' # '

K # ;-=5?&A<=ˢ ;<?;4=5 :ˢ -7ˢ 45-=->&<":ˢ 6-8=Bˢ <=-"5ˢ ;9-C5ˢ 4<ˢ 45ˢ :8:;&A&-"ˢ 6<:ˢ 6& 4-8ˢ>&@-8"B

*M33' < 89B< !ˢ 8>ˢF$*F "-8>4ˢ-7ˢ 4&:ˢ <"Bˢ 5"-8>4ˢ-7ˢ 5&A5: 59ˢ ˢ &:ˢ &?5ˢ -ˢ95 89"ˢ -ˢ 45ˢ7= &">ˢ 9?<B<

45"ˢ -6<9Bˢ J-95ˢ8;ˢ7-9ˢ 45ˢ -9 4ˢ 45ˢ ;<"&<9B:ˢ 7-9ˢ 45ˢ7&9:ˢ &?5ˢ J95< 45Bˢ7955= !ˢ<"Bˢ J5><"ˢ -ˢ5L<?&"5ˢ &" -ˢ 45&9ˢA-"B& &-"ˢ "ˢ5"W8&9ˢ6<:ˢ45=Bˢ-"ˢ J-<9Bˢ 45ˢ <"ˢ (<9&"ˢ&" -ˢ 45ˢA<8:5:ˢ-7ˢ45&9ˢ?&:7-9 8"5:ˢ 7= A59:ˢ 64-ˢ 4<Bˢ :4-6"ˢ A-6<9B&A5ˢ &"ˢ <A &-"ˢ 6595ˢ B5>9<B5B!ˢ <"Bˢ :5ˢ -ˢ 9-6ˢ&"ˢ 45ˢ><==5<::5:ᵠ<"Bˢ -"ˢ 49&: -4<=ˢ B5ˢ C&=<!ˢA<;<&"ˢ-7ˢ 45ˢ <"<ˢ <9J<9<!ˢ6<:ˢ4<">5B Hᵠ 45ˢ: -95:ˢ4<Bˢ;9-J<J=ˢJ55"ˢ&"ℝ895Bˢ Jˢ 45ˢ:<=ˢ6< 59ˢ 64&A4ˢ4<Bˢ ?<B5ˢ&:ˢ6<ˢ 49-8>4ˢ 45ˢ :4-$4--5:ˢ "!ˢ :-?5ˢ:4&;:ˢ 45ˢ6&"5ˢ<:ˢ65==ˢ<:ˢ 45ˢ6< 59$A<:D:ˢ4<Bˢ J55"ˢ ;&59A5B!ˢ<"Bˢ&ˢ6<:ˢ7-8"Bˢ "5A5::<9ˢ -ˢ95B8A5ˢ 45ˢ <==-6S <"A5:ˢ 49-8>4-8ˢ 45ˢ7=55ˢ &>4ˢ-8"A5:ˢ-7ˢJ95<B!ˢ4<=7ˢ <ˢ;&"ˢ-7ˢ6&"5ˢ<"Bˢ<ˢ;&"ˢ-7ˢ6< 59!ˢ6<:ˢ<==ˢ 4<ˢA-8=Bˢ J5ˢ <7&J9B5Bˢ7-9ˢ5<A4ˢ?<"ˢ &B-"&<ˢ;9-?&:5Bˢ 6-ˢ 4-8:<"Bˢ B8A<:ˢ -ˢ<ˢ 95"A4ˢ;&=-ˢ&7ˢ45ˢ6-8=Bˢ J9&">ˢ 45ˢ 9?<B<ˢ &" -ˢ<ˢ ;<"&:4ˢ;-9ˢ <=B59-"ˢ:D5 A45Bˢ<ˢA4<9ˢ-7ˢ 45ˢ 9-8 5ˢ64&A4ˢ45ˢ :8J?& 5Bˢ -ˢ 45ˢ 8D5@:ˢA-8"A&=ˢ 45ˢ 6-8"B5Bˢ J5><"ˢ -ˢ 7<&=ˢ 9<;&B= !ˢ<"Bˢ 5<A4ˢ B<ˢ&"ˢ5C59ˢ ><==5-"ˢ 4595ˢ6<:ˢ 45ˢ :<Bˢ A595?-"ˢ -7ˢ7=&">&">ˢ 45ˢ B5<Bˢ &" -ˢ 45ˢ :5<ˢ <=B59-"@:ˢ :4&;ˢ A-"<&"5Bˢ 45ˢ?5B&A&"5:ˢ <"Bˢ B5=&A<A&5:ˢ7-9ˢ 45ˢ :&AD!ˢ<"Bˢ;<::&">ˢ B<&=ˢ79-?ˢ><=S =5-"ˢ -ˢ><==5-"!ˢ 45ˢD"56ˢ 45ˢA-"B&&-"ˢ-7ˢ 45?ˢ<==

7ˢ 45ˢ48"B95Bˢ<"Bˢ 7&7ˢ:<&=ˢ64&A4ˢ4<Bˢ=57ˢ -98"<!ˢ <ˢ 48"B95Bˢ<"Bˢ 65"ˢA-8=Bˢ:&=ˢ J5ˢA-8"5Bˢ645"ˢ

"> F$*F -ˢ3$*3 -6<9Bˢ=57ˢ 45?ˢ -9ˢ7&C5ˢ B<:ˢ 45 !ˢ6595ˢ&"ˢ 45ˢ><=5ˢ 64&A4ˢ45ˢ?5ˢ-"ˢ4&:ˢ6<ˢJ<ADˢ -ˢ 45ˢ 4<?5:!ˢ<"Bˢ64&A4ˢ 45ˢB5:A9&J5Bˢ<:ˢ:-ˢ;5A8=&<9=ˢC&-=5"ˢ 45ˢ8"8:8<=ˢA-=Bˢ J9-8>4ˢ6& 4ˢ&ˢ7->ˢ<"Bˢ ?&:!ˢ<"Bˢ<?&B:ˢ:W8<==:ˢ<"Bˢ B9&C&">ˢ:4-659:!ˢ<"Bˢ<ˢ:5<>9-6&">ˢ6&=B59ˢ<:ˢ 45ˢ;<::5Bˢ 45ˢ:45=59ˢ-7ˢ 45ˢ A-A4ˢA-<:!ˢ 45ˢ=-:ˢ:&>4ˢ-7ˢ5<A4!

- 459' 7-9' "5<9=' <' 655D' "' 45' N 4$*N 4!' 45' :D ' =&7 5B!' <"B' <=B59-"' 7-8"B' 4&?:5=7' 6& 4' 45' =?&9<" 5' -7' -"' (<9&"5I' B5' 5A<=B5!' 45' <<!' 45' <"' (<9A-:' <"B' 65=C5' - 459' C5::5=:' &AD' :&>"<=:' 6595' 7= &">' <==' 9-8"B!' <"B' 45' :5<' 6<:' :-' 4&>4' 4<' & ' 6<:' :A<9A5=' ;-:S :&J=5' -' =-659' <' J-<' 45' =<9>5' ><==5-":' 6595' 9-==&">' 45<C&=' 45&9' 6-8"B5B' :<&=:' 4<B' J55"' :;=&' J ' 45' >8::!' <"B' ?<:' :' <"B' <9B:' A<99&5B' <6<' 4<' "&>4 ' & ' <><&"' J=56' 4<9B ' 45' 7->' A=-:5B' &"' -"A5' ?-95!' <"B' 45' "5L' ?-9"&">' <=B59-"' 6<:' <=-"5' &"' 45' -;5"' :5<' 6& 4-8' <' :<&=' &"' :&>4 !' 4<C&">' ;<::5B' J5 655"' 45' 9D"5 :' <"B' 45' 45 =<"B:' 5A<=B5' <"B' B<' 5 C<' 4<B' B&:<;;5<95B' 6& 4' 45&9' A-":-9 :!' 4<C&">' <:' <=B59-"' A-"R5A 895B' >-"5' "-9 4$' 5' 4&?:5=7' :--B' -"' 65:' <"B' :-8 4$65:' "' 45' . 4$.."B!' 45' :<6' <' "8?J59' -7' :<&=:' -"' 45' 4-9&I-"' -"' 45' *F 4$.F9B' 45' 7-8"B' 4&?:5=7' HC& 4' &B-"&<' <"B' 45' J-B' -7' 45' 7=55 !' <"B' &B-"&<' :&>S "<==5B' -' 4&?' -' A-?5' -"' J-<9B' J:59C< &-":' :4565B' 4<' 45' 6595' 45"' &"' M3' F+E' -9 4' =< & 8B5' 45&9' =-">& 8B5' 45' B&B' "-' D"-6' 45' 6595' ;9-J<J=' <' 48"B95B' <"B' 7&7' ?&=5:' 65:' "-9 4$65:' -7' <;5' 9< 4' &B-"&<' <:D5B' <"L&-8:=' 7-9' 5A<=B5' <"B' B<' 5 C<' <=B59-"' A-8=B' J8' :<' 64595' 45' 4<B' =<:' :55"' 45?!' =&5' :8;;-:5B' 4<' 45' 4<B' >-"5' -' 45' <9-5' :=5:' -9' H#' A5=<"B!' 64595' 4595' 6595' 59?<"' 7&:4&">' :<&-":' EC4&A4' 4<B' <' 9<B5' 6& 4' ;<&"

><&"' <' A-8"A&=' 6<:' 45=B' 45' :&AD"5::' 4<B' J5A-?5' 4&&>4 78=' 4-:5' 64-' 4<B' 5:A<;5B' 8"6-8"B5B' 6595' H<&="' &==' 79-?' 6<"' <"B' A-=B!' <"B' 45' 6-8"B5B' 6595' 7= &">' J' 48"B95B:!' 45' &"A5::<"' :-9?:' ?<D&">' A<95' H"B' <5" &-"' &?;-::&J=5' <=B59-"' <"B' 4O' 95"A4' 4&=-' &":&: 5B' 4<' <' <==' A-:' <"B' 4<I<9B:' 45' ?8:' H55;' -7&H' 45' 9&:4' A-<:' &5>-' =-95I' B&: 95::5B' 7-9' B&5' ?&:59' -7' 45' ?5"!' -' 64-:5' :87759&">:' 6<"' -7' 6< 59

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8>8:

4<B J5A-?5 <75<978= <>>9<C< &-"! &?<>&"5B 4< <=-"> 45 65: :4-95 4595 ?8: J5<4<9J-89 :-?5 64595 <"B 4< 45 6-8=B 7&"B 95: <"B :45= 59 <?-"> <4-:;& <J=5 <4-=&A ;5-;=5 45 &:4-; -7 &==<=-5! < -8"> & I$?<89&A5 <"B <"8?J59 -7 9&:4 79&<9: 6595 &" 45 7=55 &5>- =-95I 4<B ;-::&J= J5<9B 45?:;5<D -7 45&9 A-8"S 9 <"B A-8" 9 ?5"! <"B 4595 6595 7&:4&">A-""5L&-":J5 655" <B&I <"B #<=5"A&<" <"B <=6< ! 64&A4 45 <"B ?<" - 459: ?8: 4<C5 D"-6" -7! 4-8>4 45 4<B "- J55" -" 45 A-<: &" ;59:-" 8 45 9&:4 45?:5=C5: 6595 6& 4 =-"I- B< 5 C<! <"B &B-"&<4<;;&= --D 45 -;&"&-"-7 45 ;&=- : 45 B< <6<:7&"5 <"B 45 :&AD 6595 B&C&B5B 4-:5 64&A4 A-8=B J5 ?-C5B 6595 9<":S 75995B 64595C59 4595 6<: ?-: 9--?7-9 45?! <"B <: <=B59-" ;<::5B -<"B 79-<?-"> 45><==5-":6& 4 4&: ?5B&A&"5:<"B 4&:<99-69-- ! 45 6<:95A5&C5B 5C59 64595 6B 4 45 5<>59 W85: &-"! 64595 6<: =-"I- B< 5 C<i 4595 6<: :A<9A5= <?"64- B&B "- 7-9>5 4&: -6" 695 A45B"5::&" <"L&5 7-9 45 &B-=-7 45?<==

45 A<=?4<B J55" J8 <" &" 59=8B5 &" 45 : -9? 45 :<?5 "&>4 45 6&=B 65: 6&"B A<?5 B-6" -"A5 ?-95! <"B 7-9 5=5C5" A-":5A8 &C5 B< : 45 65" $-" &" 45&9 ?&:59 !H 8"<J=5 -A-??8"&A< 55LA5; J :&>"<=:! 4-=B&">- 45 -A5<" <:7<9 <: 45&9:<&=&">;-659:6-8=B =5 45?! <"B :55&">><==5-" <7 59 ><==5-"! W85"B-: <?-"> 45?! 7<==&"> <6< -=556<9B <?&B: B9&C&"> :W8<==: <"B 9<&"! -" 45 C<: 9-==59: -7 45 =<" &A "& :=<"B! 64&A4 45 :8;;-:5B -J5 5" =5<>85: 79-? 45 A-<: ! <=B59-" ;<::5B B<">59-8:= "5<9 6<: ;594<;: A4&==! 64-:5 95?5"B-8: A=&77: 7<==: 4559 6- 4-8:<"B 755 &" - 45 :5<! -9 ;594<;: ""&:J-7&" -9 ""&:4<9D " 45 1 4$*1 4 -7 5;5?J59! 45 6& 4 &B-"&<<"B 7&7 C5::5=:! 7&7 $ 6-:4&;: -"= -8 -7 < 48"B95B <"B 7&7 ! =5<D&">49-8>4 5C59 :5<?! <"!B

45&9' 65<9 ' A956 :' 95<B ' -' =&5' B- C"' <"B' B&5' 79- ?' 5LS 4<8: &-"!' A9<6=5B' ;<: ' 45' =<:D5 :!' <"B' 6595' -8 ' -7' B<">59

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&4! 4; 4"

"B' 64595' 6595' <==' 45' 95: ' i' 4&9 !' =<9>5' <"B' :?<==!' 4<B' J55"' :8"D' -9' <D5"' &"' 45' 4<""5=' 4595' 95?<&"5B' "5<9= ' :5C5" ' -' J5' : &==' <AA-8" 5B' 7-9

-"' (<9 &"5I' <"B' B<' 5 C<!' 6& 4' 7&C5' <"B' 65" ' -7' 45?!' 4<B' : 5595B' "-9 4' <7 59' ;<::&">' 45' 9D"5 :' 45 ' 65" ' -"' -' =< & 8B5' 2. !' ?5<"&">!' <:' <=B59-"' 4<B' 9&>4 = ' A-"R5A 895B!' -' ?<D5' 7-9' 45' :5 =5?5" ' &"' A5=<"B ' 45 ' 4<B' :877595B' :-' :5C595= ' &"' 45' <A &-"!' 4<' 45 ' ;9-J<J= ' B-8J 5B' 45&9' <J&=& ' -' 95<&A4' ;<4&' <' <==' 45' : -9?:!' 4-65C59!' 64&A4' >956' 6-9:5' <:' 45' <&9' J5A<?5' A-=B59!' -J=&>5B' 45?' -' <J<"B-"' 45&9' &" 5"S &-"' "5' ><==5-"' 6<:' B9&C5"' -"' 45' <9-5' :=5:' 45' 95: ' 89"5B' <J-8 !' <"B' ;9-J<J= ' ?&:=5B' J ' 45' 9&:4!' ?<B5' 7-9' 45' 4<""-"' -9' <=6< ' :' 45 ' J9<A5B' -' 45' 6&"B!' 45&9' -9"' 9&>>&">' ><C5' 6< ' ' :;<9' <7 59' :;<9!' :<&=' <7 59' :<&=' 6<:' A<99&5B' <6< ' 4-:5' 64&A4' 4<B' :877595B' ?-:' B9-;;5B' 7&9:' -' =556<9B ' :5A-"B' 6<:' =-:' -"' 45' 9D"5 :' ' <' 4&9B' 75==' B-6"' 45' A-<:' -7' A- =<"B!' <"B' B9&7 5B' -"' 45' :=5' -7' (8P ' 6<:' -"5' -7' 45' =<9>5:' :4&;:' &"' 45' 64-=5' 7=55 ' 45' A-?S ?<"B59' x4&:' "<?5' &:' 8"D"-6" ' 6<:' <' >9<"B55' -7' 45' 7&9:' 9<"D!' <=6< :' Q :59C5B' &"' :&=C59 @H 5' 4<B' ?<B5' 4&:' 6< ' &" -' :-?5' D&"B' -7' 4<9J-89' 64595' 45' 6<:' :<75' 79-?' 45' 5=5?5" :' ' J8 ' 45' 9&:4' A- :' -7' 45' 5: 59"' :=5:' 6595' 5?; 5B' J ' 45' 95;-9 :' -7' 45' 65<= 4' 64&A4' =&5' 4<B' 6& 4' 4&?' 45' 7<&" &">' A956' A-8=B' "-' B575"B' 45?:5=C5:!' <"B' 45' :4&;' 6<:' 7&95B' <"B' J89" !' 6& 4' <=?-:' 5C59 ' -"5' 4<' & ' A-" <&"5B H

45&9' A-?;<"&-":' 4-=B&">' <' J5 59!' J8 ' -"=' 9< 459' &5 59' A-89:5!' 9-==5B' <=-">' 8;-"' 45' J<AD' -7' 95=<"B!

K :4=5 ' -' <=:&">4<?!' -C' 'F _ = 44 ' 43*$8' ()
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>9-;&">7-9 45 4-;5B$7-9 :45=59 45 A-?&">-7 45 ;<"&<9B:4<B J55"=-">B&@5<? -7 J 45 9&:4<: 45 59<-7 45&9 B5=&C59<"A5 79-?" 9<"" 4<B J55" 75<95B<: 45&9 ?-:59&-8:B<">59 J 45 :A<" ">S =&:4><99&:-" 45 95:8= -7 45 7&>4 &" 45 4<""5=! &7 D"-&C"<<==! 6<: D"-6"-"= J C<>85 95;-9 <"B 45 A-8" 9 6<: 49-6"&" -<759?5" -7 5LA& 5?5" ! 645"! &" 45 7&9: 655D-7 5; 5?J59! ;<"&:4:<&=:6595 95;-9 5B &" "8?J59: <: :55" <=-">45 65: 59" A-<: ! - -"5><=! -77 =&>-! &" =56 < ! < 45 ?-8 4 -7 45 4<""-" &" 7<A 5C59 64595

7&9: 4595 6<: <8"&C59:<= ;<"&A 5C5" :4&;: 6595<99&><7- =5 45 (<-9-7 &?59&AD! &" :5"BS &">6-9B-7 45&9<;;5<9<"A5 -45 -8"A&=! A-"C59 5B 45? " -:5C5" :A-95 65" $7-89?5" 6595 :<&B -4<C5 =<"B5B <9<=55 &9 P4<? & I6&==&<?! 64-4<B 95 89"5B -J5 5;8 ! <"B 6<: ?-95 &"7&9?<"B &"A<;<J=5 4<" 5C59! B5:A9&J5B 45?<: 65" $7-89><=S =5-": H 8?-89>9<B8<== --D ?-95<8 45" &A 7-9? 5 -"B B-8J ! ;<"&<9B:6595-" 45 A-<: ! B&: 95::5B! J8 =&D5= "- 6& 4: <"B&"> -J5 5L 95?5= B<">59-8:! &7 45 6595<==-65B -=<"B &" :<75 ! <"B -B&: 9&J8 5 <9?: <"B ;-6B59 <?-"> 45 9&:4 A=<": & 4 -"5 A-":5" ! J8 6& 4-8 A-??8"&A< &"> 6& 4 5<A4 - 459! 45 ">=&:4-77&A59: :55? -4<C5 A-"A=8B5B 4< 4595 6<: J8 -"5 A-89:5 7-9 45?-;89:85 45 ;<9 9<=55 6595 &B-"&<@: 4-8:54-=B :59C<" :! 64-4<B J55" B9&C5" &" -45 J< &" <: ?<==79&>< 5! 4<B :8995"B595B! <"B 4<B J55" J9-8>4 -" :4-95 4<=7 B5<B 45 J5>>5B 4<9B 7-9 =&75 45 4<B 79&5"B: < < 597-9B! 45 :<&B! 64-6-8=B ;< <4<"B:-?5 9<":-?7-9 45? 8 75<9 <"B 65<D"5::A-8=B "- <77-9B -J5 ?<>"<"&?-8: &9 B6<9B 5"" ! 64-A-??<"B5B < 9<=55 <: =5! ><C5

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8%' 6'0$' 2! %&!' #8%' ,'&.!' .',,!%($' +'6' &%/(6!6' $!"))*2"&
#+!' -%)(#' % ' !&&0' '(6' +'6' -/#')(#%')(.,!' +!0'
2!,%(.!6' #%' !"',6!@$' $Y/'6&%(']%(!' % ' #+! *' 9'$' #+!'
,*)&'(#!' +!&$!,' 9)#+' %(' '&#)(!1' %(' 2%'&6' 9+%
;4'$ 60)(.' &% *' #%),' '(6' '(F)!#0' +!0' 8'(#!6' 4'#!&N
#+!0';+'6' (%#' '' 6&%-' %(' 2%'&6' 2/#' #+!' 6&!.$' % ' #+!'
-/#&)6' -/66,!' 8+)"+' #+!0' +'6' 2&%/.+#' 8)#+' #+! *' 4&% *'
-')('N '(6'#+!0'$!(#2%'#$'%('$+%&!'#%'2!.' %&' ''$/--,0
#' 8'$' #+!' $' * !')(.,!' 9+!&!' '(6!&$' '(6')#1 * '/&)"!'
+'6',' (6!6'!).+#' 0!'&$' 2! %&!' 8)#+' -&%"!$$)%($' '(6')(S
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)(.' 8+)"+' +'6' "%* !' #%').+#' #+!' &)$+' 2'##,!' '$' 8!,,'
'$' #+!)&'%8(' -,!'6!6')(' 9')(' #%' 2!' ',,% 9!6' #%'),,' #+!)&'
9'#!&"'H' +!' 2%'#$@"&!8$'.'9!' $%'-)#!%/$'('"S
"%/(#' % ' !"',6!@$"%(6)#)%(' #+!' '#+%,)"' "'/$!' 9'$ $%
",!'&,O' (%8' #+!' ,%$)(.' %(!' #+'#')#' 9'$ 6!")6!6' #+!0'
$+%/,6' +'9!' (%' &!,)!' '#')(.,!' #' 8'$' ',&!'60' '
$-%#' % ' #&'.)"','*!*%&O'#%' #+!' -'()'&6$' +!' 2%'#$'
!&!' $!)1!6' #+!' *!(' 8+%' +'6',' (6!6')* -&)$%(!6' '(6'
#+%$!' %(' 2%'&6' #+!' .',,!%($' +/(#!6' ',&!'60' 8)#+)(' '
+')&@$ 2&!'6#+' % ' 6!$#&/"#)%(' '(6' 8)#+' 6!'#+' *'H)(.'
6'),0' +'9%"' '*%(.'#+!*' +%)$#!6' #+!)&'&'..!6' $'),$' '(6'
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;9&:-"59:' <D5"' <' &">=5!' 48:' B5S
:A9&J5:' 45' A-"B&&-"' -7' 5A<=B5@:'
><==5-" _

@ 4595' B&5B' 7-89' -9' 7&C5' &"' 45'
:4&;' 5C59 ' B< ' -7' 48">59' <"B' 4&9: !'
<"B' 5' 4&:' :4&;' 6<:' -"5' -7' 45'
J5:'789"&:45B'7-9' C&A 8<=:' 64&A4' 45'
D"-65 4!'7-9' -8' -7' :-?5' - 459' :4&;
;5-;=5' 6595' :5" ' -' J5' 95=&5C5B' -8'
-7' 4&:' :4&;' 4595' 95?<&"' 7&C5'
48"B95B' ?5"!' -"5' 48"B95B' -7' 45?'
<95' C59 ' :&AD!' <"B' B-' =&5' B-6"' <"B'
B&5' B<&= !'<==' 45' 95:' C59 ' 65<D!' <"B'
45' A<; <&"' C59 ' :<B' <"B' 65<D'
65" $7&C5' ;&;5:' -7' 6&"5' <95' =57'
&"' 45' :4&;!' <"B' C59 ' =& =5' J95<B!'
<"B' "-'6< 59!' J8' 64<' 45' J9-8>4'
-8' -7' ;<&"!' 64&A4' :&"D5 4' ?<9S
C5==-8:= !'<"B' 45&9' 7=5:4' ?5<' 45

*M33 5; 5?J59

"- 459 ><==5-" -7 < 4-8:<"B -":! "<?5B 89 <B -7 45 -:<9 ! 64&A4 <=B59-" 4<B 6< A45B :<B= 7<==&">< 6< J57-95 45 6<C5:! 4<B <=:-" "5<9= 65< 4595B 45 45<B=<"B -7 599 45 4<B <== J8 5:A<;5B =5<9-7 45 5"-9?-8:A=&7=7:-7 45 =<:D5 :=<"B:! :45 4<B "-? -95 -75<979-? 45 :5< 5 655" 45 &<:$ D5 :<"B 45 ?<&"=<"B 4595 &:< ;<::<>5 64&A4&: :<75 &" ?-B59< 5 65< 459! J8 45 ><=5! 64&A4 4<B :=&>4 = ?-B59< 5B! 4<B 9&:5" <><&" 45 6<C5: <: 45 9-== &" 79-? 45 =<" &A -" 45 :4<==-6&">:4-95:-7 95=<"B J-&= <?-"> 45 9-AD:&" J<B 65< 459 6& 4 <789 8"S :89;<::5B &" <" ;<9 -7 45 -A5<" 9-"> &B<= A89S 95" :<BB -" 45 B<">59! <"B 645" 89 <B -7 45 -:<9 5" 595B 45 :-8"B! & 6<: <A<8=B9-" -7 J-&=$ A; *+$.+ &">7-<? 4595 6595 :A<9A5= 4<"B: -6-9D 45 :<&=: 8 -7:5C5" 48"B95B! 7&C5 48"B95B 6595 B5<B! <"B ?-: -7 45 :89C&C-9: 6595 >5" =5?5"! <"B J57-95 :45 6<: 4<=7 6< 49-8>4! :45 : 98AD <?-"> 45 J95<D59:8;-" 45 &:=<"B ?<BB5"5B -77&A59 9<" 45 ;&=- x< 5S "-5:5 49-8>4 45 45<9 ! Q:< &"> 45 4<B B-"5 & J Q 95<:-" @ -?5 -7 45 >5" =5?5" 9&5B -=<8"A4 < J-< ! J8 "-J-< A-8=B =&C5 7-9 <?-?5" &" :8A4 < :5< 45 ;&=- @: :-" =<:45B 4&?:5=7 -< ;=<"D! <"B 6<: 6<:45B -" :4-95 <=-"5 -7 45 64-=5 A-?;<" ! <"B <P 45 95: =< <?-"> A<""-" <"B B-8J=--" A45: : <?&B: 45 9-AD:&" =<:D5 -8"B:

45 :<?5 =- 4 -7 5; 5?J59 $6& "5::5B <"- 459 <"B ?-95 95?5"B-8: A< <: 9-;45&" 4-?-"B 45 :5C5" :4&;: &" 45 ?-8 4 -7 45 4<""-" :5" 45&9 A-ADJ-< : 06& 4 64& 5 7=<>: &" -& =98:4! <:D&"> ;59?&::&-" 7-&@ 45 ?5" -A-?5 -" =<"B 4595 6595 "- ">=&:4

A<""-5< ! 45 B9-8>4 &: :- >95< . = 44)'() - ;<9 -7 45 "<C -8A45B =<"B K 5;-:&&-" -7 8<" " -"&- -7 <" 64595 -9 4<B <" 95=&57 -7 6< 59 5"-<! 5; *M3+ _ =44 8'() :&"A5 45 ">=&:4 7=55 =57 45? @_ &9 <==-; - 89>4=5 ! 5; K V'.!(+$!.*6R!*(5; *.$ *2$.2 _ !)

4595! J8 4595 6595 =-A<= <8 4-9& &5: 64- D"56 4< #
45 ">=&:4 6-8=B 4-=B 45?<":659<J=5!<"B 45 95S
W85: 6<: 9578:5B 595!<:5C59 64595! 45 ;<"&<9B:@ :A;*M33 &*+$.+
;<::&-"<5 A9 6<: 7-9 6< 59 45 -77595B <J8 -7
6&"5 7-9 5C59 A<:D -7 6< 59' 45 -77595B ?-"5 &"
<" W8<" & 4< 45 ;5-;=5 A-8=B <:D &"<== ! 45
-77595B 45 459&77 -7 =<95 @<>95< :4&;! /6& 4 <==& :
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6< 59<: 6-8=B :59C5 45&9 6<" : == 6<: &"C<&"
45 459&77 6<:<79<&B -7<" ">=&:4 ><==-6:!<"B "-
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J ;9< 59-9;89A4<:5 45 6595 --755J=5 -<5?;
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45 - 459 :&L'65" B5:;<&9&">= -8 '&" - 45 -A5<"<><&"!
=H8 '& 6<: -"= - 5"A-8" 59 45&9 7< 5 &"< :6&7 59
7-9? 45 6595 A<8>4 &" 45 :<?5 ><=5 64&A4 4<B
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- ;&5A5: -" 45 9-AD: *! =<95! <"B -8 -7 <== 45&9
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6- - 459 ><==5-":6595 :55"< 45 :=5 -7 99<"
45 5"B -7 -"5 6<: 8"D"-6"! :<C5 4< & "5C59 95S
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;<"&:4 "-J=5: 6& 4 4&?! 475< 5"5B - 7-8"B59! <"B
= -" 56&:! 98: &">" - 45 ;<"&:4 A-""5L&-":-7 <=$
#< ! A<99&5B 459 8;- ;-:& 5 - 45 -6"! <"B :5" <
:9-">;<9 ! -9 64< 6-8=B 4<C5 J55"< :9-">;<9
B &'J55";-?;-:5B -7 45<= 4 ?5"<"B "- -7 - 59$
7&>:D5=5 -":! - 45 W8< 45 6595 ?<B5 ;9&:-"59:
(H" 45 :;-! <"B -" 56&:! 8"B59 64-:5 5 5: 45
#595 <D5"! -77595B - :8995"B59! &7 45 A-8=B 4<C5 <

;9-?&:5 -7 =&75 7-9 4&?:5=7 <"B 4&: A-?;<"&-":
45
(< -9 :<&B 4< 45 ?8: >&C5 8;' 45&9 <9?: 4&=5
45 6595 45:& < &">! 45 :<6 45 9&:4 :"< A4&"> 45
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J5
45 B9-;;5B < 45&9 6-9D! <"B A-8=B "- 9&:5 <><&"
45 (< -9 --D ;-::5::&-" -7 45 :4&;! <"B :5"
45
A956 &" -' 45 A<: =5! :-' 5L4<8: 5B 4< 45 A-8=B "-
:6<==-6 45 7--B 64&A4 6<:' >&C5" 45?! J8 A<: & 8;
<><&"

459 C5::5=:' 65" -" :4-95 < B&77595" ;-&" :' -7
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64-' 4<B J55"" <=95<B <D5" &">4<?' 6<:' <7&"5 :-=S
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-7 ;9&:-"59:! ?8: J5 <AA5; 5B <:' :-?5 5C&B5"A5 4<
"- 4&">' 5=:5 A-8=B 4<C5 J55"" 5<:&= B-"5 6& 4 45?
5: <"B 7--B 6-8=B -"= >&C5 45?' J<AD 45&9 : 95"> 4!
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>&C5"" 4< 45 :4-8=B J5 <==' ;8 -' B5< 4! <"B 5C59
-"5 -7 45 8"7-9 8"< 5 A95< 895:' 6<:' B5=&J59< 5= :4-
-9 4<">5B! 5LA5; -"' 56&:' <"B "&"5 -459:! 64-:5
9<":-?:! & 6<:' 4-;5B! ?&>4 J5 7-8"B C<=8<J=5 5-9>5
&">4<?! &9 &A4<9B@:' :-"! 65" 8;&" -' (< -' -' :55
5; ' C C 45 :<?5 6-9D B-"5 4595 <=:-" <"B Q 48:!@ 69-5 &9
&A4<9B 4&?:5=7! @ 4<C&">' ?<B5 < A=5<"' B&:;< A4 -7 45?!

J- 4'&"' -6"' <"B' A-8" 9 !' 65' 95: 5B' 8"B< ' <=' B< !
>&C&">' ;9<&:5' <"B' 4<"D:' -' =?&>4 ' -B' 7-9' 459' (<$ $$$$$
QR5: @:' ?-:' 4<;; ' :8AA5::' <"B' B5=&C59<"A5' 79-?' 459' :5; i& 5Å
B<">59-8:' 5"5?&5:@H -"' 56&:!' 6& 4' 4&:' "5;456@!
<"B' 45' 95: ' 6B&-:5' =&C5:' 4<B' J55"' :;<95B!' 6595' -9B595B'
-' 9->45B<!' -' J5' A<99&5B' 45"A5' -' ">=<"B ' -"'
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-9' J5&">' 8"<J=5' -' ?<@A4!' 6595' D&==5B' J ' 45&9' 5:A-9 '
-' :<C5' 45' 9-8J=5' -7' A<99 &">' 45?
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(< -' 45' "< &C5' 9&:4' 45?:5=C5:' 4<B' :;<95B' 4&?'
<=' 9-8J=5' &"' 5"W8&9&">' <7 59' ;9&:-"59:' 45' 75<9' 4<'
45 ' ?&>4 ' :45C' : ?;< 4 ' 6& 4' 45' ;<"&<9B:' 6@H:
65=' 7-8"B5B!' :-' =-">' <:' 4595' 6<:' <' 4-;5' 4<' 45'
;<"&<9B:@ :&B5' ?&>4 ' J5' 45' 6&""&">' -"5' J8 ' <:' 45'
<=5' -7' 45&9' B575<' :;95<B' <J9-<B!' <"B' 45' D"-6=5B>5'
6& 4'& ' 4<' 45 ' 6595' --' 5"755J=5B' -' B575"B' 45?S
:5=C5:!' 45' &5:' -7' <' A-??-"' A955B' <"B' <' A-??-"' 5"S
?& ' -' ">=<"B' 6595' "-' : 9-">' 5"-8>4' -' -C59A-?5'
45' 5?;<&-"' -' ;=8"B59' 45' <:&=&<"' >5" =5?5"'
595' 9&A4=' B95::5B!' <"B' 45&9' C5=C5' A-<:' <"B' >-=B'
A4<&":' 6595' <"' &995:&: &J=5' < 9<A&-"' 45' ><=5-"' -7'
-"' 5B9-' B5' (5"B-I<' 4<B' ?<B5' =56' < '&"' <:&"DS
&">' :<5!' <"B' 6<:' J9-8>4' 8;' J54&"B' =<95' :=<"B'
& -"' 5B9-' 65" ' <:4-95' 6& 4' <' 48"B95B' A-?;<"&-":!
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=5-"' 6<:E -C59 <D5"' J ' 45' ><=5' -7' 45' =- 4' -7' 5;$
5?J59H 64&A4' 4<B' ?<B5' 45' 4<C-A' < ' 45' ?-8 4' -7' 45'
4<""-" ' 45' 6<:' B<:45B' -"' 45' 9-AD:!' <"B' <=' 64-'
B' J55"' =57 ' -"' J-<9B' 6595' B9-6"5B ' @ -6B<" '
H @(<==5 !' A4&57' -7' 45' &:=<"B!@ A-?;=5 5B' 45' 6-9D!
#' :5 &">' 8;-"E -"' 5B9-' <"B' 45' 95: ' 45 ' 6595'
J&==5B' -' 45' =<: ' ?<"!' <"B' 45&9' 95<:895' <D5" H

K <99<&C5' -7' &9' ' &">J<?!' K <99<&C5' -7' &9' &A4<9B' &">S
5;!' 4<?!' 5;' VM33 _ '

' A-":-9' -7' -"' 5B9-' 6<:' B9&C5"' ;<:' =<95' :S
=<"B' &" -' 45' J< !' <"B' 695AD5B' <' 899&:4--=5' 45'
&4!)' :<C<>5:' 7=-AD5B' =&D5' 6-=C5:' -' 45' :4-95' 45' ><==5-"'
65" ' -';&5A5:' 45' A956' 6595' 7=8">' -"' 45' :<"B:!' :-?5'
B9-6"5B!' :-?5' :98>>=&">' :&==' 7-9' =&75"' J8' 645 459'
45' 6595' B5<B' -9' <=&C5' ?<B5' "-' B&7&595"A5' -' 45'
48">9' 9<:A<=:' 64-' 6595' 6<A4&">' -' ;95' 8;-"' 45?'
' :9-D5' -7' <A=8J' J9-8>4' <==' -' <A-??-"' :<5!' <"B!'
:9&;;5B' -7' 45' 7&"59' 64&A4' 4<B' J55"' 45&9' B5:98A &-"!'
Q 45' 6595' =57' -' 45' 6<:4' -7' 45' &B5
(-95' <;;<==&">' :&==!' =&D5' 45' B5:-=<&-"' A<8:5B' J'
:-?5' 5"-9?-8:' 7=--B' -9' 5<9 4W8<D5!' 6<:' 45' :A5"5' J5S
655"' =&>-' <"B' <== :4<""-"' '>=<"A5' <' 45' ?<;' 6&=='
5L;=<&"' 64' 4595' 6<:' <A-"A5" 9<&-"' -7' 4<C-A' -"' 4-:5'
756' ?&=5:' -7' A-<:' '$ 45' A-<:' '-7' (<-' 95"B:' B&95A =' '
65:6<9B' 79-?' =&>-' 7-9' :5C5" ' ?&=5:!' <"B' A9&;;=5B'
C5::5=:!' 64&A4' 4<B' 7<==5"' 8;-"' <' =55' :4-95!' 6595' ?5' J'
<' 6<==' -7' A=&7&H!' :95 A4&">' <A9-::' 45&9' A-89:5' 7-9' <' B5S
>955' <"B' <' 4<=7' -7'=-">& 8B5' 45&9' -77&A59:' 4<B' ;-::&J=' '
45<9B' 4<' 4595' 6<:' :45=59' :-?564595' &"' 45' J<K'
(<"' :4&;:' 6595' -J:59C5B' 7-9' B<:' 4-C59&">' J5 655"'
-::<"' -&"' <"B' =<=<"' J8' 6& 4-8' 5L;59&5"A5B'
;4-:!' 45' A-8=B' "-' 4<C5' 7-8"B' 45&9' 6<' &"' 45' 7&"5:'
65< 459' <?-">' 45:4-<=:' <"B' &:=<"B:' 45' --' 6595'
-C59 <D5"' J' 4a' :<?5' >95<' :-9?' 45' "8?J59:' 4<'
;59&:45B' <95' 8"D"-6"' 4595' <95' "-' ?5<":' -' B&:&"$K'
>8&:4' J5 655"' 4-:5' 4<' 7-8"B595B' -8' &"' B55;' 6< 59'
<"B' 4-:5' 4<' 65" ' -';&5A5:' -"' 45' J5<A4' 45' <A'
8<=' :A5"5!' 4-65C59!' <:' B5:A9&J5B' J' 6-' ">=&:4' 6& /'
"5::5:!' 6<:' <:' 79&>4 78=' <:' 48?<"' 5 5' 5C59' =--D5B'
8;-"
Q 45"' ' 6<:' <' =&>-!Q 69-5' &9' 5-7795' 5" -"!'
Q ' "8?J595B' -"' -"5' :9<"B' -7' =5::' 4<"' 7&C5' ?&=5:' &"'
Q =5"> 4!' 5=5C5"' 48"B95B' B5<B' J-B&5:' -7' ?5"!' 64&A4' 45'
Q :5<' 4<B' B9&C5"' 8;-"' 45' :4-95' 45' A-8" 9' ;5-;=5

@ -=B' ?5' 45' =&D5' 6<:' &"' - 459' ;=<A5:!' 4-8>4' "-' -' #
@ 45' PD5' "8?J59@H
&9' &=4<?' &I6&==&<?' ?<B5'<' ;9->95::' -' 45'65:' &4!4; 4"
A-<:' 79-?' 8J=&"' :4-9=' <7 59' @ :' ' ;<::5B' 79-?'
@ =&>-!@ 45' :<&B!' @ ' 45=B' -"' -6<9B:' 8"B9- :!H' <"B'
@ :-' -' <== :4<""-"!' 45'8 59?-:' ;<9' -7' -""<8>4'
@ 4<' 6<' ' 65"' -' :55' 45' J<' 64595' :-?5' -7'
@ 4-:5' :4&;:' 6595' 695AD5B!' <"B' 64595!' <:' ' 45<9B!'
@ =<' "-'=-">' J57-95' 65=C5'-9' 4&9 55"' 48"B95B'-7' 45'
@ B5<B' J-B&5:' '9-B5'<=-">' 8;-"' 4<':9<"B' "5<9' 6-'
@ ?&=5:!' J8' =57' J54&"B' ?5'<'=-">' ?&=5'-9' ?-95!' <"B'
@ 45"' 89"5B'-77'79-?' 45' :4-95!' =5<C&">' J57-95' ?5'<'
@ ?&=5'<"B'J5 59'&"' J-4' 64&A4' ;=<A5:' 45':<&B' 4<'
@ 4<B' :55"'&!' 4595'=<' <:' >95<' :-95'-7' 45' &?J59'-7'
@ 6&@5AD5B' :4&;:' <:' 6<:'&"' 4<';=<A5'64&A4'? :5=7' 4<B'
@ C&565B' J5&">!' &"' ? -;&"&-"!' ?-95' 4<"' 6-8=B'4<C5'
@ J8&='7&C5'-7' 45'>95<5:':4&;:' 4<'5C59' :<6!' J5:&B5:'
@ ?&>4 '>95<'J-<:!' A<J=5:'<"B' - 459'A-9B<>5'<":659$'
@ <J=5' 45958" -!' <"B' :-?5':8A4' ?<:' :' 7-9' J&>"5::'<"B'
@ =5"> 4'<:' '"5C59':<6'<" ' 6-'A-8=B'?<D5' 45'=&D5@H
45':5<6<:'"-'<":659<J=5'7-9' <==' 45'A985=' '-7'
"<895'6<:'&?&<5B'J' 45'A985=' '-7'?<"!' <"B' 4-:5'
=&"5:'-7'J-B&5:' :4565B'><:45:'-"' 45?' "-' ?<B5'J'
9-AD'-9' :;=&" 595B' :;<9' @ 45'?&:59&5:' 45' :8:<&"5B'
@ 8;-"' 4&:'A-<:!@ 69-5' &9' 5-9>5' <956!'@<95'-'J5'
@ ;& &5B' &"' <" ' J8' ;<"&<9B:' 7' 4-:5' 4<' A<?5'
@ -' 45'=<"B'J ':6&??&">'-9' 5"7-9A5B' 4595-' J '7<$'
@ ?&"5!'C59' "5<9' 4955' 4-8:<"B' 6595':=<&" @ 45'
@ 6595':-' ?&:59<J='B&: 95::5B'A-?&">' -'=<"B!@ 95;-9 5B'
<"-459!' @ 4<' -"5' ?<"!' "<?5B' (5=<>4=&"' (@ <JJ5!'
@D&==5B'5&>4 '6& 4'4&:'><==-6>=<::<L5@Ó 45'"-J=59

'J" ' 'N* 4"(' !,-!='
1 4 4' 8'()'
' 8"B9-' <' <:=5!'<'J5' ?-8 4' ,-!=4 4' :!)
-7 #' " '

* ':"!F+!=4 4' 8'()
-' "@' 4 ' "/!+-0
Ó 57.$5' 4& 5' -' &9' &A4-=<:
4& 5!' 5;' '*._ =4 4' :!)

b

*M33
75; 5?J59

-9 6&:59 @ 5&= C98"> 4&: 4<"B: -C59 45 B&:>9<A5 -7
4&: A-8" 9 !: J8 A-8=B "- 4&"B59 & 'H <"B 45 ">=&:4
=--D5B -"; 6& 4 < "- 8""< 89<= :< &:7<A &-"; < 6-9D
64&A4 6<: B&::-=C&">&"; ?89B59 <"; <==&<"A5 C4&A4 45
4<B :- ?8A4 A<8:5 - 75<9

(45 J=--B 64&A4 45 9&:4 4<C5 B9<6"; 8;-"; 45?!@
:<&B &9 5-9>5 <95 #! (B- 4 <::895 459 (<R5: -7
(J5 59 -J5B&5"A5 - A-?5! 7-9 4< 79&5"B:4&;: J5&">
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P/ ;5-;=5 6<: C59 B-8J 78= J57-95 45 C&A -9 6<: D"- C"
(- J5 459 (<R5: @:! J8 645"; 45 :<6 45 >95< B&:$
(95::: <"B 65<D"5:: 4< 45 5"5? 6<:&"! 45 B&B
("- -"= ;8 <:? <" <: 45 A-8=B - 45 :6-9B! J8
(<95 95<B 6& 4 <== 45&9 7-9A5: - < 5"B 45 5;8 &";
(<" :59C&A5 45 <"A&5" =-C5 J5 655"; 95=<"B <"B
(;<&"; &: J9-D5" @IKH

(-B!@ A-"A=8B5B 5" -"! Q4< 4 69-8>4 7-9 459
((<R5: <><&": 45:5 &B-=< 9-8: 5"5?&5:! <"B :877595B
(4&: "<&-"; - J=--B 45&9 4<"B: 8;-"; 45?! 64595J !
(& ?< J5 4-;5B! &: B9<6"; ;59;5 8<= B&77&B5"A5 J5$
(655"; 45 ;<"&<9B: <"B 45?! <: =-">: <: 4&: ?5?-9
(5"B895 4@O

45 4<9C5: 6<: 95<;5B J 45 9&:4 &9 &A4<9B
&">4<?<"B 4&: :-": 6595 < 4<"B - >=5<"; 45 5<9:
4< 6595 =57 "A=8B&">5 45 5L5A8 &-"; < <=6< !
&">4<?A=<&?5B - 4<C5 D&==5B 5=5C5"; 48"B95B (&$
(C59:>5" =5?5"; -7 W8<=& @ 4<B J55"; :;<95B 7-9 45&9
9<":-?! J8 :;5A&<= -9B59: A<?5 B-6"; 79-? 8J=&"; -
5L5A8 5 <==! <"B 45 >5" =5?5"; 7-==-65B 45 95: 7
45 64-=5 "8?J59 4< 75== &" - 45 4<"B: -7 45 ">S
=&:4! -"; 56&: -7 -9B-C< 6<: 45 -"= :89C&C-9 H

E'(@ 5&= & 5C= '95;9-<A45B @ -"S
"5== 7-9 B-&">: :59C&A5 <><&": 45
;<"&<9B:! <: 45 J5: 79&5"B: 4< 95=<"B 4<: 2
A , '

K <956 - 89>4=5 ! 5; *3 _
K 5" -"; - 89>4=5 ! 5; *N _
G &9 &">4<?- 45 %855"!

8A4' 6<:' 45'7< 5'-7' 45'J9&==&<" 'A4&C<=9 '-7' ;<&"' =&5' A4-&A5:'95;95:5" < &C5:'-7' 45'?-:'&==8: 9&-8:'7<?&=&5:'&"' 89-;5' 45 '4<B' 98:45B' &" -' 45' :59C&A5' 6& 4' <"' 5?-&-"';895'<"B'>5"59-8:'<:' 5C59':5" ' 5?& =<9' -' 45' 5;8=A495'-7' 49&: ' 45 'J545C5B' 4<' 45 '6595' 45' :-=B&59:'-7' 45' =?&>4 ' -;5'<"B' &:4-;'4<B' A-?S ?5"B5B' 45?' -' 45'A4<9>5'-7' 45'<">5=:'<"B' 45' :<&" :' 45' :;5=='-7' 45' "<?5:'-7' 45' ;-:=5:'4<B' J55"':4< S 595B' J ' ">=&:4' A<""-"' 45' 5=5?5" :!' 64&A4' 6595' B55?5B' -B@:' ;5A8=&<9' ;9-C&"A5_ <:' &7' -' B&:5"A4<" ' 49&: 5"B-?!' 6595' B&:5"A4<" ?5" ';-::&J=5!' -7' :-' 7-"B' <"' &==8:&-"_ 64&9=5B' 45?'8;-"' <':4-95' 64&A4' 45' 6<C5:' -7' <' 48"B95B' ?&==&-"' 5<9:' 4<B' ?<B5' 45' ?-:' B<">5S 9-8:'&"' 45' 6-9=B' ' 4595' <:' 45 'A9<6=5B' 4<=7' B9-6"5B' 49-8>4' 45' :897' -' 7<==' &" -' 45' R<6:'-7' 45' 9&:4' 6-=C5:

"5' ?-95' 9<>&A<=' :-9 '95?<&":' -' J5' -=B ' 45"' <=B59-"' 95A-C595B' 45' ?<&"' J-B '-7' 45' 7=55 '-77' <;5' 9< 4!'<"B' 45' <"L&-8:' W85:&-"' 6<:' <:D5B' 4&?' 79-?' 5C59 ':4&;' 4595' 6<:' 45' < <i' 64595' 6<:' =-"I-' B< 5 C<i_&' 6<:' "-' 7-9' B< 5 C<@:' :<D5' <=-"5!' 4-8>4' &-' -7=&A59'&"' 45' 9?<B<' 6<:' ?-95'=-C5B'<"B' 4-"-895B' &' 6<:' J5A<8:5' 45' < <@:'795&>4' 6<:' ?-95' 4<"' 8:8<== ' ;95A&-8:' 45' "-J=5:' -8 4:'&"' <:&=5!' 64-:5' 7<?&=&5:' 4<B' J55"' 4<9B=' ;59:8<B5B' -' =5' 45?' <AA-?;<" ' 45' 5L;5B&-"!' 4<B' J55"';=<A5B':;5A&<==' 8"B59' -"' =-"I-@:' <95' 45' < <' 4<B' J55"'&"' 45' 4&AD5:'-7' 5C59' 7&>4 ' 45' 4<B' :877595B':5C595=' <"B' A-8=B' "-' J5<9' 459' :<&=:' 45' 4<B' "-' >-"5' "-9 4' 6& 4' 5A<=B5' 645"' <=B59-"' &57' 459' J8' 6& 4' <"-459'><==5-"':45' 4<B' B9&7 5B' <6<

J55' ! < = 44' :!)' <?B5"' 95S B8A5:' 45' "8?J59' ;8' -' B5< 4' -' -' 48"B95B!' <"B' <BB:' 4<' 45' %855"' C' A-"B5?"5B' 45' 5L5A8&-"' -7' 45:5!' <:' <' ?< 59' 78==' -7' A985= @

45'=<">8<>5' J-4'-7' &">4<?'<"B' &I6&==&<?':456:' 4<'8;' -' 5A5?S J59' "-' 5L;95::&-"' -7' B&:<;;9-C<=' 4<B' 95<A45B' 45?

*M33 &4! 0

#

8' '
5; 5?J59

-=556<9B & 4 5L 95?5 B&77&A8= :45 4<B A=5<95B 45 5L 95?5 ; -&" -7 (< -! J8 8"<J=5 -> -789 459 :45 4<B ?<B5 459 6< &" -=<AD:-B < ! <"B <"A4-95B -8 :&B5 <== A9- 4< :45 4<B 95<A45B :-&" 9&A< 5 <: :;- 8"B5: 9- 5B 6<: ;594<;: 5L;=<&"5B J 45 G;95:5"A5 -" J-<9B -7 -8">' (<89&A5 & I>59<=B! 45 :-" -7 &9 <?5:' 45 9<& -9!@ 64-:5 ;&9< 5 4<J& : ?< 4<C5 <8>4 4&?' ?<" :5A95 :-7 45 65: 59"A-<: & IS >59<=B B&5B 64&=5 :45 =< 4595!<"B 6<: A<: &" - 45 :5<&"<A ;95::A45: 6& 4>95< :-=5?"& @H 6<: 45 A-8" 9 -7 45 (<A &==&<?:! 45 4-?5 <"B "5: -7 45 7<?-8: 9<"" @(<==5 -89 55" <=&<":6595 :5 -" :4-95 - 9 45 B&:;-:& &-" -7 45 ;5-;=5 45 75== &" 6& 4 -"5 &A4<9B 89D5! A<==5B 45 5C&=@: -D!@ -9 5C&=@: -"!@ ;594<;: -"5 -7 9<"" @: -6" J9--B! 64- 9-JJ5B 45?<"B --D 45?;9&:-"59: 4&: 6<: -" 45 = 4 -7 5; 5?J59 " 45 : -9?-7 45 =- J 45 < <! 64&A4 4<B =57 459 J5: <"A4-9: < <=<&:! 75== 45=;=5::= -" :4-95 45 :5< 6<: J9-D5" J <45<B=<"B 64&A4 A-C59: 45 J< " B< 5 C<"B 4&: A-?;<"&-": 95<A45B 45 :<"B:! <"B 6595 <J=5 -A<99 <9?:6& 4 45? 45 7-8"B <" -=B A<: =5 < " ->95< B&: <"A5 79-?' 45 6< 59 <"B < 5?; 5B -;8 & &"<: < 5 -7 B575"A5 5;-9 :<&B 4< &B-"&< 4&?:5=7 6<: &" 4&: ;<9 &">4<?' 6<: ?<D&">' 4<: 5 -' 45 :;- 645" 45 45<9B 4< 45 4<B 95$5?J<9D5B &" <"- 459><==5-"! <"B 6595 J5< &">' -8 <><&" -' :5< 45 :-8 4$65: 6&"B 6<: :&==: -' 45<C 4< & 6<: 4-8>4 &?;-::&J=5 45 A-8=B 5:A<;5 (<" :4- : 6595 45<9B 79-?' 45 -77&">' 45 "&>4 <7 59 45 :<&=5B! <"B 45 :4&;' 6& 4 <==& A-" <&"5B 6<: :8;;-:5B -' 4<C5 >-"5 -' 45 J- -? 45 < < 6<: =57 -' J5 ;=8"B595B <:D: -7 6&"5 <"B -&= 6595 9-==5B -" :4-95 98"D: <"B ?<P: -7 45 -8">' 4&B<=>-:

6595' B9<>>5B' -8 ' <"B' 9&7=5B' J ' 45' 5L;59&5"A5B' ' 5HHH:' ' --D!' <"B' 45' :<"B:' -7' <== A9- ' 6595' : 9565B' &B 4' C5=C5 :' <"B' >-=B' J9-A<B5 ' 45' 459&77' A<?5' -' 45' 95:A85' &"' 45' %855"':' "<?5' J8 ' 45' R<AD<=:' 6595' --' : 9-">' 7-9' 4&?!' -9' 45' A-": <J=5:' ;8 ' -"' R<AD<=:' :D&":' <"B' :A9<?J=5B' 6& 4' 45' 95: ' 7-9' 45' ;95 ' - ' <' 9<>' -9' <' A-&"' 6<:' 95:A85B

(5<"64&=5' 45' :4- :' 6595' "- ' B<' 5 C<':' J8 ' A<?5' 79-?' <"- 459' : 9<>>=59' 64&A4' 6<:' B<:45B' &"' ;&5A5:' 8;-"' 45' 9-AD:' -7' 99&: ' <' 5 C<!' 7&"B&">' 45' 6&"B' 45<BS &">' 4&?!' 4<B' B5 59?&"5B' -' 98"' J<AD' <"B' 9 ' 7-9' A- $ j=<"B!' 98: &">' 9< 459' -' 45' 48?<"& ' -7' 45' 4595 &A' <?5:' 4<"' -' 45' -9 4-B-L' A985= &5:' -7' 45' 9&:4 ' 5' 75=' &"' 6& 4' <' :5A-"B' ><==5-"' -77' 45' A-<: !' <"B' 45' =<: ' -7' 45' 7-89' ><==5<::5:!' <"B' ->5 459' 45 ' =<J-895B' 4<9B' -' B9<6' -77' 79-?' 45' :4-95 ' 8 ' -::<"' -&" ' : --B' -8 ' --' 7<9' 7-9' 45?' -' A=5<9!' <"B' 45 ' ?<B5' 7-9' <==&J5>' -9' &==&J5>' 4<9J-8&K' 45' ><==5<:' >- '&"' ' :-95' J9-ED5"!' J8 ' &=' <J=5' -' 7=-< ' 45' 6-' ><==5-":' 9<"' -"' 45' -AD:' < ' 45' -;5"&">!' <"B' B<' 5 C<' 6<:' 695AD5B' <' :5A-"B' &?5 ><&"!' 4-65C59!' "-' =&C5:' 6595' =-: ' -89 55"' 48"B95B' ?5"' 79-?' 45' :4&;:' >- ' :<75' -"' =<"B ' 45' ><==5<::' A-" <&"5B' :&L' 48"B95B' ?-95!' <"B' 45 ' 6595' <=' 65=' ;9-C&B5B' 6& 4' <9?:' 9?:!' 4-65C59!' 6595' "-' 7--B' <"B' 45 ' 6595' : <9C&">' 45' &:4-;' -7' &==<=-5' <"B' <"' 9&:4' 79&<9' 64-' 4<B' J55"' &"' 45' < <' <"B' 4<B' J55"' <C5B' 6& 4' 45' 95: !' 8"B59 --D' 4< ' 45 ' :4-8=B' J5' =&-:;& <J= ' 95< 5B!' <"B' <' 756' 48"B95B:' -7' 45?' ?<9A45B' "=<"B' 6& 4' 45' &:4-;' 7-9' <' >8&B5 ' 45 ' 75=' &"' 6& 4' <' ;<9 ' -7' ">=-$ 9&:4' :5" ' J ' & I6&==&<?' 79-?' 45' &H<=5!' <"B' =5B' J ' 6-' J9- 459:' "<?5B' C&"> -" ' ' <:' "&>4 ' 45' C&"> -":' 75=' 8;-"' 45?!' D&==5B' 65" ' <"B' 6-8"B5B' ?-95 ' "' 45' ?-9"&">' 45 ' 7-8"B' 45 ' 595' B5<=&">' 6& 4' ?5"' 64-' 6595' 4<=7' B5<B' <=95<B

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04<B "- : 95"> 4 -=&7 45? <><&" (45 J5: !@& 6<:
*M33
5;5?J9 $-J:59C5B! (55?5B - A<99 :-?5 D&"B -7 ?<R5: " 45
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QJ-894--B_ ;59=H<;: 95:;5A 7-9 45 &:4-;! :- 7<9 &"S
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@ -""5=J 6595 : &== C&9 8<= :-C595&>":! 64595! 45
(<A 655"&5: 98=5B 8"B59 45? 6& 4 758B<= <8 4-9&
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A-C59 45?:5=C5: @ 5&= 6<: "- < 45 &?5&" 95J5=S
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64- 4<B =<"B5B :4-8=B J5 <D5" -9 D&==5B @ 5&=
:45= 595B! 75B! <"B A=- 45B 4&: >85: : &== 45 4<B
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-- ;-65978=7-9 4&? - ?5BB=5 6& 4 6<: :8:;5A 5B
4< 45 ?5<" - 8:5 45&9 :59C&A5: &" <" &":8995A &-"!
<"B 6- 4-8:<"B :-=B&59: 6595 :4&;;5B &" 4- 4<: 5
79-? "-H=<"B - ?<D5 45<B <><&": 45?
8 &7 45 9&:4 A4&57 4<B <" :8A4 &" 5" &-"! B<

5 C<' B&B' "- E5"A-89<>5' & ' ! &:' -"5' 4-8>4 ' 6<:' -' 5:A<;5!' &7' 5:A<;5' 6595' ;-::&J=5!' 79-?' <' A-8" 9 ' 64&A4' 4<B' J55"' 45' :A5"5' -7' :8A4' 4-99&J=5' A<=<?& &5:' -' ;<&"!' <"B' -'A<99 ' J<AD' 45' ;95A&-8:' &$5<:895:' 64&A4'4<BEJ55"' 5" 98: 5B' -' 4&:' A<&@5' & 459' 7-9' 4&:' 95<:-"!' -9' &"S 7=85"A5B' ;&&&C< 5= ' J ' 495< :' -^' ;9-?&:5:' 79-?' & I$' 6&==&<?!' (<5 655" ' <"<>4!' -"' 64-?' 45' ;<"&<9B:' B5;5"B5B' 7-9' 45&9' ?5<!' J5><"' <7 59' <' 756' 655D:' -' :4-9 5"' 45' :8;;=&5: H' 45' ><==5<::' <Eu <==&J5>_ :45' <:'A<==5B' 45' 59-"<_ 6<:'?-'4-;5=5::= '8":5<6-9 4 45' A -J59' 65< 459!'<;;5<95B' -'4<C5':5 =5B!'<"B' -"' =-"I-' 4<B' 95;<&95B' 459' :-' 7<9' 4<' 45' 4-8>4 ' :45' A-8=BE <99 '4&?':<75= ' -' 45' 65: 59"'&:=5:' -7' A- =<"B 45' 6-8=B' 4-=B' J8 ' 4<=7' 45' ;<9 "' J8 ' ?<" ' -7' 45$;<"&<9B:' 4<B' 7-8"B' 79&5"B:' &"' P=: 59' 64-' 8"B59 --D' -' <D5'A<95' -7' 45?' 49-8>4' 45' 6&" 59' ?-" 4:!'<"B' 4<B' "-' -JR5A &-"' -' J5'=57 ' J54&"B ' 45' 95: !' 6& 4' -"' =-"I-' < ' 45&9' 45<B!';95;<95B' -' 5?;' -^AaE ?-95' 45' 7-9 8"5:' -7' 45@:5<' 5' 4<B' J55"' 489 '&"' 45' =5>' J ' <' <;: <"' 645"' 45' ><==5-"' 65" ' -"' 45' 9-AD:!'<"B' 6<:' : P=' 8"<J=5' -' 6<=DV 5' 6<:'A<99&5B' -"' J-<9B"' <"B'&"' 45' ?&BB=5' -7' A -J59' 45' 59-"<' :<&=5B ' 45' A95;' A -J59' H=-">' 45' A-<:' 7-9' :5C59<=B< :' 6& 4-8 ' ?&:<BC5" 895!' gH-::<"' -&" ' 6<:' ;<::5B' :<75= !'<"B' -9 ' :=<"B!'<"B' -8>4' 6&P !'<"B' -8>4' - =5 ' 45' 6-9:' -7' 45' #- <>5' 6<:' -C59"' <' 756' 4-89:' ?-95' <"B' 45 ' 6-8=B' 4<C5' J55"' :<C5B ' 8 ' 45' B--?'-7' 45' 9?<B<' 6<:' -"' 45?' 45 ' : 98AD' 8;-"' <' 9-AD' -77' 8"=8A5' ' 45' ><==5<::' J9-D5'&"' ;&5A5:!'<"B' -"= ' 7&C5' -8 ' -7' 45' 64-=5' 48?J59' 6595' :<C5B ' 49&A5' 695AD5B!' -"' =-"I-'<"B

Q 45 ' <95' =&D5' -' 7<?&:4' 7-9' ?-95' J55C5:'<"B' ?8 -"Q< R'$' +I Hx&"' -7' ?5< ' (<5 655" ' 6&==' 4-' $'3 ' $*' 4!' ' '7 (' 2 A ' *1' H,8& 59 4&:' A-8" 9 ' -' :5==' 45?' "- =44 ' 8'()

=&' K

45 R-8" > <: &=&<" =-9B:; 59&:45B < =<: 6 -48"B95B <"B :&L -7 45&9 J-B&5: 6595 6<:45B <:4-95 <"B A-?$

-& -J59 RH 5B 8"B&: &">8&:45B -5 >9<C5 H

& 4 4&: A-"A=8B&"> A< <: 9-;45 5 9<>5B -7 45 &<"<B< &" 95=<"B 6<: 5"B5B 6<: A<=A8=< 5B 4< &" 45 ?-" 4 -7 5; 5?J59 <=-"5! J57-95 B< 5 C< <"B 4&: A-?;<"&-": 6595 <BB5B -5 45 =&: ! 5&>4 4-8:<"B ;<"&<9B:; 59&:45B J5 655" 45 &<" @: <8:5S 6< <"B =<:D5 -8"B 5=5C5" 48"B95B 6595 ;8 j -5 B5< 4 J &">4<?' 4955 4-8:<"B 6595 ?89B595B J 45 9&:4' 45 95: ! ?-95 7-9 8"< 5! 6595 B9-6"5B

8 45 <=5 -7 ?&:59 6<: : &=-= &"A-?;=5 5! <"B 4-:5 64-5 :55?5B -5 4<C5 5:A<;5B 6595 < 5"B5B -5 45 =<: J 45 :<?5 : 9<">5 7< <=& 45 :4&;: 64&A4 95?<&"5B 6& 4 &B-"&<! <"B :8AA55B5B &" 65< 459&"> 599 ! ?<B5 <=-= :<&= 7-9 ;<&"! <"B 45 6&"B : &=-= 4<">&"> -5 45 :-8 4 -7 65: ! 45 6595 : &=-= -J=&>5B -5 D55;: <: A=-:5 -5 & @ <: ;-::&J=5! <"B B9<>>5B -" J8 :=-6= 45 ;<::5B <;5 =5<9 &" A-?;<" -" 45 7 4$ 7 4 -7 5; 5?J59! <7 59 64&A4 5<A4 C5::5=:4&7 5B 7-9 & :5=7 6& 4

H >5"59<= B&95A &-":-5 ?<D5 &7;-::&J=5 7-9 -98[<

5; 5?J59 <=B59-" 45=B 4&: A-89:5 &-= 45 &< 4 55"B! 645" 4&: =<: B9-;-7 6< 59 6<: A-":8?5B 45 6&"B <"B 45 :5<= :4565B "-:&>": -7 <J< 5?5" ! <"B 45 95?<&": -7 4&: A956! 65<9&5B <"B 6-9" -8 ! A-8=B "-=-">59 6-9D 45 C5::5= 5 4<B =-: 4&: 95AD-"&">! <"B -"= D"56 4< 45 6<: :-?5645 95 &" 45 < -7 &:A< 5 4<B ?<B5 8;4&: ?&"B -98" J57-95 45 C&"B! <"B <D5 4&: A4<"A5 -7 45 =<"B -C4&A4 & 6-8=B A<99 4&?! 645" -6<9B: 5C5"&"> 45 :<6 <:4&;A9<6=&"> <=-">! 4<C&"> =-: 459 -;?<: : 45 7&95B <>8"! -64&A4 <=B59-" 95;=&5B

K -" =-"I-! 64-6<: 45 -J R5A -7 38 ?8A4 &" 595: ! 6<: B5:A9&J5B J <" 9&:4?<" 64-:;-D5 -4&?' <: 0 <=! :=5"B59! -7 ;<=5 A-?;=5L&-"! 7=<L5" <"B :?-- 4 4<&9! J54<C&-89 ?&=B <"B 5?;59< 5! -7 :;55A4 >--B <"B B5=&J59< 5! >95< = &!9!&!("!6 J 4&: ?5"@_ = 44 8'() 5A Ó &9 ? & I6&==&<?' -<=$:&">4<? 5; F+ _ = 44 :!)

45' ;9-C5B' -' J5' -"5' -7' 45' 7&"5:' -7' 45' ><==5-":!' 4-8>4' :-' :4< 5&@5B' 4<' 45' J<B' "-' 95A->"&:5B' 459' 5'=5<9"5B!' 4-65C59!' 79-?' 459'A<; <&"' 4<' 45' A-<:' -7' ;<&"' 6<:' J8' <' 756'=5<>85:' B&: <"!' <"B' 4<' <" <"B59' =<' B&95A=' 8"B59' 45&9' =55H 45' J-4' 95<A45B' 45' 4<9J-89' 4595' 45' "5L' 5C5"&">' &B-"&<' 4<B' <99&C5B' 45' B<' J57-95!' <"B' -"5' <7 59' <"-459' 45' :89C&C-9:' B9-;;5B' &"' 49-8>4-8' 45' 7-==-6&">' 655D' 5A<=B5' -"=!' 6& 4' 45' -459'C5::5=64&A4'6<:'6& 4' 4&?'&"' &">=5!' :8AA55B5B' &"' 75 A4&">' -98""<' :-?5' 6595' <:' 7<9' -' =556<9B' <:' ' 5J<: &<"' &7 $7-89'C5::5=:' &"' <==A<?5' J<AD!' <"B' J5 655"' "&"5' <"B' 5"' 4-8:<"B' :&==&C&">$' ?5"' -' 695 A45B' 6<:' 45&9' :<5!' 4<' <"' -77&A59' :5"' 79-?' (<B9&B' :<&B' 4<'&'6<:';&5-8:' -' :55' 45?H -8=' <"B' :&"D&">' <:' 45' :4&;:' 6595!' 45' A956:' 6595' -J=&>5B!' <' <" <"B59!' -' 95?<&"' &"' J5&9' J59 4:' <' 45' 9&:D' -7' ;5:&=5"A5!' 7-9' 4595' 6<:' "-' 4-:;&<=' =<9>5' 5"-8>4' -' 95A5&C5' :-' ?<" !' <"B' 45' -6"59:' -7' ;9&C< 5' 4-8:5:' 75<95B' &"75A &-"' &B-"&<' <J<"B-"5B'4&?:5=7' -' ?&:59 !' :48' 4&?:5=7' 8;' &"' 4&:' 9--?!' 9578:&">' -' < 5"B' -' J8:&"5::!' <"B' <:' :--"' <:' 45' A-8=B' ?-C5!' 7=5B' <"B' 4&B' 4&?:5=7'&"' 4&:' A-8" 9' 4-8:5' ' ' 5J<: &<"' <"B' <' -98"<' <"' <AA&B5" !' :&">8=<9=' 45' :<?5' <' J-4' ;=<A5:!' 7&"&:45B' 45' 4-99-9' -7' 45' : -9

@' ' 45' 9- "5'@ -98"<w!' 69- 5' <A-995:;-"B5"' -7' #<=:&">4<?' 79-?' ' 5<"' B5' 8I!' @'<99&C5B' 45' @' B?&9<=' 8<"' (<9&"5I' B5' 5A<=B5' 6&4' 6-' ;&"" <A5:' <"B' <'>95<' ':4&;' <"B' 4595' J' 45' B&:5<:5B' ;5-;=5' 4<' 45' J9-8>4' 6<:' :5' -"' 7&95' 45' 4-:;&<=' <"B' 64-==' J89"5B!' <"B' 8<"' (<9&"5I' B&5B' 6& 4&"' 5"' B<' :' <7 59' 4&:' <99&C<=@' @' 45' <::<>5' 5J<: &<"w' <99&C5B' <;<&"' (&>85=' B5' W85"B-' 6& 4' <' :4&;!' 64595-7' 45' <:' >5"59<=!' <"B' B&5B' 6& 4&"' :&L' B<' :' <7 59' &:' -6"

/' H@' :'=<: &?7'C59=-:'@' -' J<' 'W8&5"' A95<!@_ ' 3!'') 'O)8 *' '8'4 3 $' !*' 1'8'' $$ $ '' =-' A 8J95

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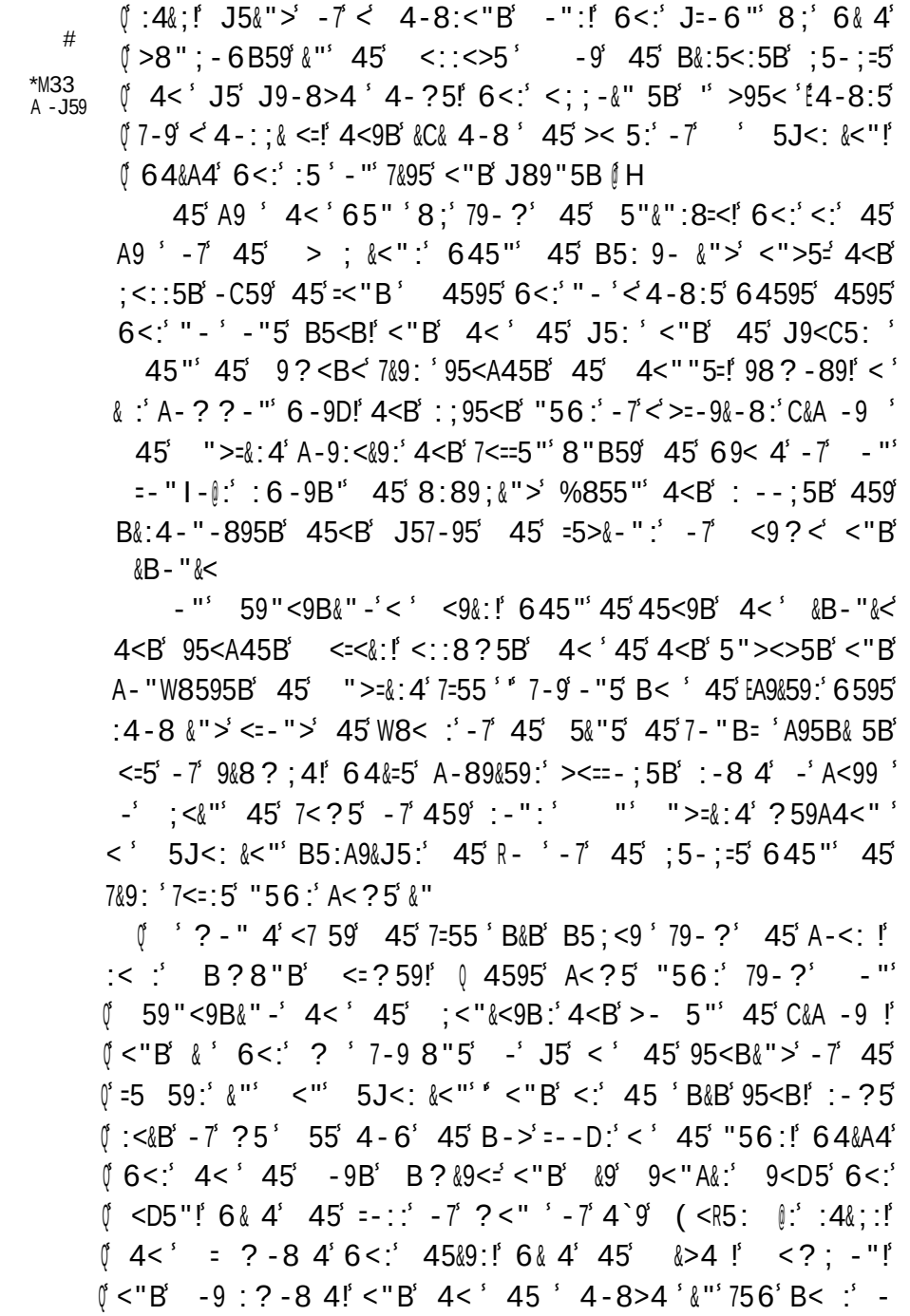
*M33
A -J59



J5'&"' -"B-" ' 45' -6"' ?<B5'>&@5<'75<: :'<=='4<'B< !' 98""&">' 49-8>4' 45' : 955 :' -"' 4-9:5J<AD!'6& 4' 9&A4' <;;<95='<"B' C&I<9B:' -"' 45&9'7<A5:!' A9 &">' 6& 4' =-8B' C-&A5:!' u' 4<' >95<' B->' 9<"A&:' 9<D5' &:' ;9&:-"59!' 6& 4' A4<&":'<"B' 75 59:'v' <"B'<' "&>4' 45' -6"' 6<:' ?<B5' 78==' -7' J-"7&95:!' A9 &">'<"B':4-8 &">!' 6& 4' -459' 45&9' B<"A5:'<AA8: -?5B!' 95C&=&">'<'459' (<R5: ' 6& 4' C =<"-8:' 6-9B:'' <"B' 645"' 45' A-8=B' "-' B-' <" ' ?-95!' 6& 4' : -"5:' 45' J@@<D5' B-6"<'<==' 45' 6&"B-6:' -7' ?' 4-8:5@H

'756' B< :' B&:;5==5B' 45' ;=5<:<"' B95<?' 45' 985' : -9' A<?5' -7' 45' :A5"5' <' <=<&:!' 45' 7&95:4&;:!' 45' <A &-"!'<"B' 45'7=&>4'-7' 45' 9?<B<'<"B' 45"'7-9' :-?5' 655D:' 4595' 6<:' 45' ;9-=-">5B'<>-" ' -7' 8"A59 <&" !' &==' 45' 95?"<" ' -7' 45' :4< 595B' :4&;:' 95<;;5<95B!' J9&">&">' @ 5: &?-"&<=' -"' 45&9' :&B5:'79-?' 64<' J<"W85' @ 45' A<?5!' 6& 4' =-::' -7' 4<=7' 45&9' ?5"' &"'7&>4 !'7<?&"5! @ <"B' :&AD"5::!' A9 &">' -8' -"' &9' 9<"A&:' 9<D5!' :< &">' @ 45' 6<:'<' B5C&=' <"B' "-' ?<" @H

9<D5@:' 6<:' 45' "<?5' &"' 5C59' ?-8 4' 9<D5"' <><&":' 64-?':<&" :'<"B'<">5=:'4<B' "-' ?-95';-659' 4<"' ?-9 <=:' ' <"' &"A<9"< 5B' :;&9&' -7' 5C&=' =5' =--:5' -' <77=&A' 45' ;<"&:4' 9<A5' 49-8>4-8' 45'>=-J5

@' 6-8=B!@ :<&B'<' ?<"' <' ' 5J<: &<"!' :"< A4&">' <' 4<9W85J8I!' 64&A4' 45' B&B' "-' D"-6' -' J5' =-<B5B!' <"B' =5C5==&">' &' <' <' ;<::59' J !' @' 6-8=B' -"' ?<"' 6595K' @ 9<"A&:' 9<D5' -6' 6-8=B' 4&' 4&?' é@ @<"B':-'B956' @ 8;' 45' :"<;4<"A5' <"B'=5C5==5B'<' 45' ?<"!' <"B' B-6"' @ 75==' 45' A-AD' <"B' -77' 65" ' 45' ;&5A5' <"B' D&==5B' 45' @ ?<"!' 64-':;<D5" -' -"5' 6-9B @H

"' 4&=&;' 4&?:5=7' 45' "56:' J9-D5' :=-6=' &A 895:' 4<C5' J55"' B@@<6"' -7' 4&?' :& &">' &"' 4&:' : 8B' &"' 45' &H:A89&<=!' <"B' 45<9&">' 6& 4' <: &=&<"' A-?;-:895' 4<'4&:

K B?8"B' <=?59' -' <=:&">4<?!' K :!)
5;'91 DD=44'4B'!(' @' :!)

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*M33
A -J59

7=55 6<: B5: 9- 5B 8A4 < :A5"5 6<: &" 45 "< 895 -7 4&">: & ? ; - : :&J=5 &"5 J =&"5 <"B &"A&B5" J &"A&S B5" 45 : -9 95<A45B 4& ? 5 45<9B 79- ?' <9 ? < -7 45 <99&C<= -7 45 7=55 < <=<&:! -7 45 7-96<9B"5: -7 4&: -6 " ;95;<9< &-": ! <"B -7 ;=<": ;9-;-:5B J &B-"&&& - ? <D5 45 =<"B&">9< 459 &" 45 :=5 -7 &>4 4<" &" 4<"5 H 5L A<?5 45 <AA-8" -7 45 ?&B"&>4 ;<"&A! 45 5"><>5?5" ! 45 9?<B<@: 95 95< ! <"B -7 98?-895B &"R89 -? -95 4<" -"5 -7 45 ><==5-": 45 9&"A5 -7 :A--&! :<&B 7<=:5= -J5 4&=&;@: J<: <9B :-"! 64- 4<B <AA-?;<"&5B 45 7=55 <"B 4<B >-"5 -" :4-95 < <=<&:! :5" < B&<9 -7 4&: -6 " <BC5" 895:! <"B 8<" B5 (<"9&W85! 45 -77&A59 64-?' &B-"&< 4<B :5" -8"S D&9D! 7&==5B :455 : 6& 4 A-?;=<&" : -7 <9?<! - 64-:5 8"95<B&"5:: 45 < 9&J8 5B 45 495< 5"5B 7<&=895 -7 45 5" 59;9&:5 H 45 5"B -7 8>8: <9?< 95;-9 5B 789 459 4< 45 9?<B< 4<B ;<::5B 45 "-9 4 -7 A- S =<"B! <"B 6<: >-"5 45 D"56 " - 64& 459! ;594<;: - -96< 5 B&B " - A-"A5<= 45 ?<>"& 8B5 -7 45 B&:<: 59 :- 7<9 <: & 6<: D"-6" - 4&?! <"B 4&=&;@: <"L&-8: :&B5$"-5: ?< J5 95<B 8;-" 4&: =5 59! A-8" &">' <"B A-??5" &">' -" 45 C<9&-8: =-::5: H 45 ">=&:4! <9?< :<&B! 4<B 6-" <>95< C&A -9 ! <"B :- 7<9 <: 45 A-8=B =5<9"! J-95 45&9 :8AA5: 6& 4 ?-B5: H 45&&@ :4&;: 6595 95;-9 5B - 4<C5 :877595B! J8 " -"5 4<B J55" :8"D -9 <D5" 45 4-"-89 J5=-">5B - 9<D5 45 B?&9<= 6<: :8;;-:5B - 4<C5 J55" J<AD6<9B O

H <9?< - 4&=&;! 8= F*$ 8> N _ = 44 4! . '(3'

K -" 8<" B5 (<"9&W85 - 4&=&;! 8> *$**! <"B - 5A95 <9 B9&<W85I! -7 45 :<?5 B< 5 _ = 44 :!)

K <9?< - 4&=&;! 8> TN$ 5; 4 < = 44 :!)

/ C , *' 4<J=<" ?8A4- B5 =<:;59S B&B<: B5 =< 9?<B< "& <";-A- 9&8?;4<" ?8A4-B5 :8 C&A -9&< @

O 5= =?&9<" 5 :5 4<J=< 8" ;-A- ?<= W85 "- 4&I- :8 B5J59 -B< =< >=-9&< :5 B< Y 9<D5 @_ L! *) (78'$ ' (38*)' -!$ '')! B'$3 '6 * . 'R' . '

45' "5L' &": <=?5"'-7' 45' 98 4' #<:' 45'95 89"'-7' #
&B-"&<!' 6& 4'<' 4&9B'-7' 45'7=55 ' '<775A 5B' 4&=&;':-' *M33
?8A4' 4<'(45':48'4&?:5=78;'&"' 45' :A89&<=!'<"B'"-'-"5' A-J59
0(B<95B' -':;5<D'-'4&? @H &=-' 4595'6595'4-;5:'-7' 45'
&ER&:' Rs -95' 4<"':&L ':4&;:'95?<&"5B'R&E5'8"<AA-8" 5B'
7-9!'J5:&B5:' 4-:5'64-:5'7< 5' &B-"&< A-8=B' 5==' 5;-9 :'
A<?5'B9-;;&">'&"'-7'B&:<: 59:'&"' 95=<"B!'J8'6& 4' 45?'
<AA-8" :' <=:-'-7' ;<"&<9B:'=<"B5B' <"B' :<75' <?-">' 45'
9&:4' A4&57:' (-" 4:' ;<::5B' <6<'J57-95' 45'A<=<?& '
6<:'95<=&:5B'&"'& :'<RR;<==&">'5L 5" !' <"B' 45"'&':55?5B'
7-9' 45' ?-?5"'<:'&7' 45' :A5;95'-7' 45' ?-"<9A4'6<:'
J9-D5"!' <"B' & :' :A< 595B' 5?;&95' 6<:' =<&B' -;5"' <:' <
;95' -' 45' A-9:<&9:' 45' 7<?-8:' ?<9&"59:'-7' 45'
=H5"&":8=< 6595' 64-==' B5:9-5B' 45' >95<'-77&A59:'
-"'64-?' 4&=&;' ?-:'95=&5B'6595'B5<B'-9' <D5"' 5'
#<=B5I!' 5A<=B5!' (-"=<B<!' W85"B-!'B<' 5 C<'_'<==' #
595'>-"5' (' 4595'6<:"-'-"5'?<"'=57'&"'<==' ;<&"!@
6&@-5' <=?59!'(64-?' 45' &">' ?&>4' ;8'&"' ;=<A5'
(7-9'?< 59:'-7' 45':5<!'7-9'4-:5'64-?'4&:' 98:'6<:'
(&"' 6595' B5<B' <"B' B9-6"5B@ (' 95<'=<?5"<&-"'@
5:;5A&<=='(6<:'?<B5'7-9' -"' =-"I-'B<' 5 C<!'6& 4'
(64-?'6595'<==' 45'"-J=5:'4<'65"' @H
-'-"5'9<'-7'=&>4'79-?'<"'W8<9 59'95=&5C5B' 45'
P"&C59:<='>=--?' <9?<!'4<'4&:'5"-9?-8:';95;<9<&-":'
&"&>4'"-'J5'<J:-=8 5='6<:5B!'645"'45'J9-D5'8;'4&:'
<?;'<'8"D&9D!'?<B5'<':;9&">'-"' 59>5"'-;'T--?!'
EC4&A4'6<:' 45"'45=B' J'<':?<==' ">=&:4'><99&:-"'
--"5=' 9&?:-"!'64-'A-??<"B5B!'<7&5A 5B'<6&==&">S
"5::' -'&?&<5' &9' &==&<?' <"=5' 'J<9><&"'6<:'
&P9<">5B' 9&?:-"'6<:' -'95A5&C5':5C5"'4-8:<"B'
9-6":!'<"B'>-=B'A4<&":'6595' -'J5'B&:9&J8 5B'<?-">'
4&:'-77&A59:' ';<9'-9' 45'64-=5'-7' 45'?-"5'6<:

(' B?8"B' <=?59' -' <=:&">4<?!' K <=?59' -' <=:&">4<?!' (<9A4'
5;' & *1!'*M3N_<&j ':!)

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*M33
A -J59

<A 8<== ; <&B! <"B 5&>4 ' 48"B95B ;<"&:4 : -=B&59: 6595 <B?& 5B 6& 4&"' 45 6<==: ' 8 ' / 45 9&"A5 6<: -8 S ?< A45B &"' 4&: -6"' <9 : ' &: ?5"' 6595 A<8>4 ' &"' < 9<; ! <"B 6595 5C59 ' -"5 -7 45?' D&==5B H 45 :&5>5 6<: ' J9-D5"' 8 ; ' &"' 4<: 5 <"B :4<?5 ' 45 <9? ' ?8 &"&5B 7-9 ;< ' 45 9&"A5@: A45: ' 6<: 5?; ! 7-9 45 ?-"5 ' 64&A4 6<: -' 4<C5 95;=5"&:45B &' 4<B J55"' =-: ' &"' 45 ><==5-": -7 45 9?<B<' 45 95<:89 ' < ' 4-?5 6<: 8 59= ' 5LS 4<8: 5B! <"B 5L 9<-9B&"<9 ' 577-9 : 4<B J55"' ?<B5 "5A5::<9 ' 7-9 45 ;9-5A &-"' -7 45 A-=-"&5: <"B 45 >-=B 7=55

"' 4&: 5L 95?& ' 4&=&; <; ;5<=5B -"A5 ?-95 - 5L 8: ' 5 4<B &"A8995B 4&: =< 5 5"-9?-8: 5L;5":5: &"' 45 A<8:5 -7 -= ' 489A4! <"B < ' 45 -;5@: -6"' &"S : &>< &-" ' ' =5<: ' 45 A-8" 5B -"' 95A5&C&">' 45 ?&==&B"' A9-6": 64&A4 4<B J55"' : -=5?"= ' ;9-?&:5B ' 8 ' "5& 459 -"' 4&: :&B5 6<: A-?7-9 ' -' J5 J9-8>4 ' -' 45 < 4-=&A &">' 9-?' 45 ?-?5" ' 4< ' 45 95=&>&-8: ;89; -:5 -7 45 6<9 <><&": ' =&I<J5 4 6<: :8; ;=5?5" 5B J ' 5<9 4= ' <?J& &-"_ H79-? 45 &": <" ' 4< ' 4&=&; <==-65B 45 -;5 -' :55 4< ' -"5 95:8= ' -7 45 A-"W85: ' -7 ">=<"B 6<: -' J5 45 <""5L< &-"' -7 45 A-8" 9 ' -' 45 ;<"&:4! ?-"<9A4 _ 45 "5A5::& ' -7 <A-" 9&J8 &-"' 79-?' 45#< &$ A<"' 4<B J5A-?5 =5::' -JC&-8: ' 45 5" 59;9&:5 4<B =-: ' & :' ;89& ' 45 :A45?5 -7 <; ;9-;9&< &-"! 495< 5"&">' <:' & ' B&B 45 &"B5;5"B5"A5 -7 5C59 ' A9-6"' &"' 89-;5 ' 6<: ' < ' C<9&<"A5 6& 4 95A5&C5B ;-=& &A<= 9<B& &-": K ' 6<: -7 B-8J 78=R8: &A5 &"' & :5=7! <"B 6<: <; ;9-C5B -"= ' J ' 45 4 : 59&A<= 5:8& : 64-' 4<B J5A-?5 <;&: : &&H 45 A4<;5=: -7 L7-9B ' "' 45 75<9 -7 -775"B&">' 4P&; ' 45 -;5 4<B >&C5"' < ' =5"> 4' <;<9 &<= <"B 8" 6&==&">' A-8E :5" " J8 ' 45 4<B 9578:5B B&: &"A = ' -' >&C5' < 9<<9<E C5B& -6<9B: 45 5L;5":5: &== 45 ;<"&<9B: 6595

">=<"B' =&C<95I' 4<B' 5" 95< 5B!' 495< 5"5B!' 7=< 595B' <"B' A-?;=<&"5B" J8' <==' 5W8<==' &"' C<&"' 45' -;5' 4<B' J55"' <:' 4<9B' <:' <' B&<?-"B H' <9B&"<=' <99<7<' 4<B' =5"' 4&:' ;59:8<:&-"!' J8' 5L 8:' 4<B' -"=' :498>>5B' 4&:' :4-8=B59:' Q' -' <:D' 4&:' -=&"5::' 7-9' ?-"5 !@ :<&B' =&C<95I!' Q&:' =&D5' <:D&">' 7-9' 4&:' 45<9 @:' J=--B @H

45"' 45' 7=55' 4<B' :<&=5B' 79-?' 45' <>8:!' <"B' 6<:' 957& &">' <' -98"<!' 45' -;5' 4<B' J55"' -=B' 4<' 45' 4<B' "-' =-">59' <"' 5LA8:5' 7-9' B5=<' 45' 5L;5B& &-"' 6<:' <A 8<==' -"' &:' 6<' 45' A-:' 4<B' J55"' 5"-9?-8:' 4<B' J55"' &"A8995B' <' 45' &": &>< &-"' -7' 45' -=' 55!' <"B' ?-95' <"B' ?-95' ?-"5' 6<:' A-" &"8<==' B5?<"B5B' -':8;;=' &:' 6<" :' 8' 5L 8:' :--B' -' 4&:' 5L' 5' 4<B' 5"><>5B' -';<' 4&:' :8J:&B' 645"' 45' ;<"&<9B:' 4<B' =<"B5B' "-4&">' 4<' =&C<95I' A-8=B' :<' 6-8=B' &"B8A5' 4&?' -' <" &A&;<5' 45' &?5!' <"B' 45' ?J<::<B-9' ><C5' 8;' 45' <5?;' <:' 8:5=5::

Q' :<' "-' ?-95' -' 4&?' <J-8' ?-"5 !@ 45' 69-5' Q&' -"=' ;9-C-D5:' 4&?!' <"B' 45' 89":' 4&:' J<AD' 8;-"' ?5' <' <J=5!' <"B' 8 59:' <' 48"B95B' 4-8:<"B' &B&- &A' :;55A45:' ?-95' 7--&:4' 4<"' -"5' 6-8=B' 45<9' 79-?' <' A4&=B' -7' 6-' 5<9:' -=B' 4595' &:' "5& 459' A4<9& !' >--B' ?<""59:!' "-9' &" 5==&>5"A5' &"' 4&?!' <"B' 5C59 J-B' < 9&J8 5:' 4&:' J54<C&-89' -' B&: 95::' <' 45' <;;9-<A4' -7' 45' &?5' 645"' 45' B-==<9:' <95' -K' J5' -9"' -8' -7' 4&:' 45<9' -' ?5' 45' 5LA8:5:' 4&:' B5=<' J' :<&">' 4<' 45' &?5' 4<:' "-' <99&C5B' -' -459:' 45' :<:' 45' 9?<B<' &:' J8' <R5:!' &" 5"B5B' J8' -' 79&>4 5"' 45' %855"' &" -' ?<D&">' ;5<A5' Q 6& 4' -89' (<R5: @H

' 756' B<:' =<59' 4595' 4<B' A-?5' "56:' 4<' 45

H Q -?-'8"' B&<?<" 5 @
K Q =':<A<9' 5=' B&"59-' 5:' A-:<' <"' B5 =<:' 5" 9<[<:' B5' :8' <" &B<B' W85' "-' <;9-C5A4-' "<B<Q< 8!L' 9' '8' 2

3 >-:-' =44' 4!.'(3' K =&C<95I' -' 4&;!' 8>' &>!m =44' :!)'

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*M33
A-J59

E #

*M33
A -J59

9 ? <B< 6<: &" 45 4<" "5=! <"B 4<B J55" ? -95 4<"
-"A5 5"><>5B 6& 4 45 5"5 ? 45 95; -9 -7 45
;<"&<9B:@ :8AA5::! 64&A4 4<B J55" : <9 5B J -"
59"<9B&"-! 6<: 45 7&9: -<99&C5 -" 9<B&A &-"
7-==-65B! <"B ?8A4 A-"78:&-" -7 : -9 45 :&"A5 & -7
4&=&;! 4-65C59! A-8=B "- =-">59 J5 B-8J 5B 4-8>4
45 ;<"&<9B: 6595 "- <A 8<== -" ">=&:4 :-&=! 45
6595 A=-:5 -& ! <"B 5"><>5B&" 7&>4 &"> 6& 4 45 ;5-;=5!
<"B =&C<95I 45" 75= R8: &7&5B &" B5 ? <"B&"> 64< 45
-;5 4<B ;9-?&:5B

@ -=B 4&?!@ :<&B 45 -8" ! Q 4< -89 (<R5: 4<B
@ 7<&9= 5<9"5B 45 ?&==&-" A9-6":' 4<=7 < ?&==&-" 6<:
@ B85 &? ?5B&< 5= ! <"B -89 (<R5: 4-;5B 4< 645"
@ 45 8"B59: --B 45 B&: 95::-7 -89 <9? &" =<"B59:
@ 45 6-8=B "- -"= ? <B5 "- B&77&A8= &" ;9-C&B&">
@ 4< :8?7-9 -8! J8 6-8=B =5 4&?4<C5 45 :5A-"B
@ ?-&5 &" <BC<"A5 5 95;=&5B 4< 45 B&B "- :55
@ 64 45 :4-8=B J5 5L;5A 5B - >- J5 -"B 4&:5">5$
@ ?5" : :<&B -89 (<R5: 4<B "- B&95A 5B ?5 -
@ ;8 & - 4&?<: <"-J=&>< &-" -89 (<R5: =--D5B
@ 9< 459 - 45 :;&9& 4<"k 45 =5 59! <"B -8 A-"$
@ :&B595B 4< 5C5"&7 45 4<B >&C5" "- ;9-?&:5 < !<==! 45 !
@ 6<: J-8"B -A-?5 7-96<9B <"B <::&: -89 (<R5: !
@ A-":&B59&"> 64< -8 4<B B-"5 <"B :;5" &" 45 A<8:5
@ -7 -B

@ 5=&: 5"5B 6& 4-8 &" 5998; &"> ?5! 4-8>4 45 J5$
@ 9< 5B 4&:&? ;< &5"A5 J 6&: &"> 8"5<:&= -"4&: :5<
@ 45" 4<B B-"5 45 J-&=5B -C59 5 :<&B 45 6-8=B
@ D55;4&: 6-9B! <"B ?-95 4<" D55;& ! J8 ;95::5B 45
@ 6-8=B "- J5! <"B :-=-"> <: 45 9?<B<@:7< 5 6<:
@ 8"D"-6" 45 6-8=B "- B-< 4&"> 9-?45 : ?;$
@ -?: 64&A4 4<C5 <;;5<95B &" 4&: -=&"5:: B89&">
@ 45 =<: 756 B< : -"5 6-8=B "- A95B& 4&?6& 4 4<
@ I5<=7-9 45 5L &9;< &-" -7 4595: <"B 45 :<=C< &-" -7

' :-8=:' 64&A4' 4&:' ;-:& &-"' 95W8&95:' -7' 4&?' 45"' 45'
' 7&9: '7<C-89<J=5' 95;-9 :' <99&C5B' 45' :4565B' "-' ;=5<:895!
' J8' 6<:' @< 459' B5;95::5B' 64&=5' 45' "56:' 64&A4' 4<C5'
' J55"' 95A5&C5B' :&"A5' <95' ?-95' <>955<J=5' 4<"' 45'
' -8>4' -' 4<C5' J55"' C59' <><&":' 45' J5"57&' -'
' 49&: 5"B-?!' 4595' 4<:' J55"' :5' 45' >9&57' <' ;<9 &">'
' 6& 4' ?-"5 !' <"B' 45' 75<9' <"B' 5"C' -7' -89' (<R5: @:'
' >95< "5::!' <"B' &' J5A-?5:' ?-95' A=5<9' 5C59' B<' 4<'
' 645"' 45' -77595B' 45' ?&==&-"' 45' B&B' "-' J5=&5C5' 4<'
' 45' 5" 59;9&:5' 6-8=B' 5C59' <D5';=<A5
' &5' 4<:' "5C59' C<9&5B' -"A5' &"' 9578:&">' -'=5' 8:' 4<C5'
' &' J57-95' 45' &?5' 45"' 65' 6595' :8;;-:5B' -' 4<C5'
' 4<B' 45' C&A -9' 45' ?-B59< 5B' 4&:' -"5!' <"B' 6<:' ?-95'
' >9<A&-8:' &"' 4&:' >5"59<=' B5<=&">:' 6& 4' ?5' J8' <:' :--"'
' <:' 45' 98 4' 6<:' D"-6"' 45' J5A<?5' <:' ;9-8B' <"B' <99-$'
' ><"' <:' &7' 45' 4<B' J55"' R8:' <D5"' -8' -7' ;9&:-"' <"B'
' ?<B5' &"' -' <"' ?;59-9' "' :-?5' ?595' W85:&-":' -7'
' 79-" &59' =<6!' 64&A4' 45' -8"' B5' (&9<"B<' 4<B' -' B&:$'
' A8::' 6& 4' 4&?!' 45' 95< 5B' J-4' 45' -8"' <"B' ? :5=7'
' <:' &7' 65' 4<B' 4<= 59:' 9-8"B!' -89' "5AD:!' <:' &7' -89' ;95:5"'
' 9-8J=5' 4<B' "-' A-?5' -' 8:' 49-8>4' 4&?:5=7' <"B' &"' 45'
' A<8:5' -7' -B' 45' <9B&"<=:' --!' 64-' ;9-75::' -' J5'
' "58 9<=!!':4565B' "-"5' -7' 4<' ;=5<:895' <' -89' :8AA5::'
' 6=&&A4' 45' -8>4' -' 4<C5' :456"!' <"B' 645"' &B&">:'
' A<?5' -7' 45' 95C59:5' 45' 95C5<=5B' 45&9' ?<=&A5' 45'
' :55?5B' -' 4&"D' 4<' 45' 6595' J95< 4&">' 7955=' <><&"'
' :-' >95<' &:' 45' ;-659' -7' &P$6&==!' 64&A4' &"' 4&:' A<:5'
' ?<' J5' A<==5B' 4595 &A<=@H

<9B&"<=' ==5"!' <:' 4&=&;@:' 7<C-89& 5!' 7<95B' "-' J5 59'
4<"' 45' ?J<::<B-9' 45' -;5' 4<B' B5 <&"5B' 4&?'
P"B59' C<9&-8:' ;95 5L :' <' -?5' &==' 45' 7< 5' -7' 45' 5" 59'S
;9&:5' 6<:' B5 59?&"5B' 45"' 45' &::85' -7' 45' <A &-"' <'
9<C5=&"5:' J5A<?5' <8 45" &A<==' D"-6"!' ==5"!' &"' :-?5

4-;5 5& 459 4< 45 B&:<: 59 ?&>4 4<C5 J55" 95?5B&5B!
-9 4< 45 9?<B<?&>4 4<C5>-"5 - A- =<"B!<;;=&5B
*M33 7-9 =5<C5 -95;<&9 -=<"B59: 5L 8:!:< : =&C<95I!
A -J59 95< 5B 4&?' =&D5 <"5>9-!H<:D5B 4&?' C&A&-8:= !H 64<
>--B 45 5L;5A 5B -B- 4595!<"B <775A 5B -B&:<;;9-C5
-7 4&: ?&::&-" <= ->5 459 =&C<95I --D ==5"@: :&B5
7 45 -;5!@ 45 :<&B!Q4<B :5" 45 5>< 5 &" &?5!
<"B 4<B J55" =5::>9<:;&">& " ?< 59: -7 ?-"5 ! 45
95:8= ?&>4 4<C5 J55" B&77595" @ 45 -;5::;& 578== 4&" 5B 4< 45 4<B 5L;5A 5B 45 ;<"&<9B: -J5 B5S
75< 5B =&C<95I A-?;=&?5" 5B 4&?' -" 4<C&">< :;&9& -7 ;9-;45A &: =-=&"5:: B&B " - 95;= ! J8 89"5B
8;' 45 64& 5: -7 4&: 5 5: <"B =--D5B ;&-8:= -6<9B:
45<C5" K

&:" 55B=5::- :< 4< "-"5 95<= -7 45 ?&==&-"
A9-6":6<: 5C59 7-9 4A-?&"> 45 >95< &B5<= -7
<4-=&A 8"& ! 7-9 64&A4 45 :-&= -7 49&: 5"B-?' 6<:
J5&">9-BB5"&" -J=--B! 645" 9<A5B -& :' A5" 9<= &"S
A<9"<&-"! 6<:7-8"B 95:&B&">&" <' W8598=-8:-=B 4 ;-S
A9& 5! <:4<9;;9<A & &-"59!<"B <:8J =5 ;-=& &A&<"! 6& 4
<: ?<" -7 45 ?5<"59 ;<9 : -7 48?<"" "< 895!<"B < =& =5 -7 B&C&"5 "< 895!<: 6<: -J5 7-8"B &"<" ?-9 <=
-"64-?' 45 :8" -7 45<C5" 6<: :4&"&">

45 ;<"&:4 7=55 J5&">B5: 9- 5B! <"B 4&=&;@: ;9-S
:;5A :&" ">=<"B 4<C&">A-==<;:5B! 45 -;5 95C59 5B
-4&: -9&>&"<= B5:&95! 4< <?5: -7 A- =<"B ?&>4
J5 A-"C59 5B -45 7<& 4 =5::;98B5" ;59:-" 4<"
<?5: ?&>4 4<C5 J55" 5?;5B &" -:-?5 &?;<&5" ?-C5?5" ! 7-9 645" 45 9?<B< 6<:&" ;9-:;5A 45 4<B

K @ 5 9< Z A-?-8" "5>&E- @
K @ -" ?<=&::&?-: `9?&"-:@
K @ (5 95:;-"B&Z W85 :& 48J&59< B5
5"59 J85" :8A5:-! W85 5= 5><B- 59<
5"C&<B- A-" >9<"B5: ;9-7&?B&B<B5:'

<8"W85 =5 B&L5 W8<" ;9-75 &A- 59<
?5"5: 59 ;<9< <B&C&"<9=-! :5 W85BZ
5" 5==< <=5<"B- =-: -R-: <= A&5=- @_
8!L' (''8 . .N A 8J95 =44
4!.'(3'

J55"' ;9-?&:5B' <"' ">=&:4' 8A4 ' <"B' <' 7&L5B' 95C5"85' <:' 45' ;9&A5' -7' 4&:' "58 9<=& j' 6& 4' - 459' A-":&B59<J=5' <==-6<"A5:' 45"' 45' B<">59' 4<B' ;<::5B!' 45:5' ;9-S ?&:5:' 6595' "< 89<== ' 95;8B&< 5B'' <"B' & ' 6<:' A<=A8=< 5B' 4<' '&7' A59 <&"' 5C&=&"7=85"A5:' < ' 45' A- A4' -89 ' A-8=B' J5' 95?-C5B!' 45' &">!' &"' "- ' 8"95<:-"<J=5' 95:5" ?5" !' ?&>4 ' =5"B' <' ?-95' 7<C-89<J=5' 5<9' -' 45' <;<=' 5L4-9 <S &-":' (<& =<"B!' 64-' 6<:' "-6' 4<"A5==-9!' 6<:' :8;;-:5B' -' J5' 45' ;59:-"' 64-' 45=B' <?5:' -' 45' ">=&:4' A-""5LS &-"!' <"B' 45' &:4-;' -7' 8"J=<"5' 8"B59 --D' -' 95?-C5' 45' -J: <A=5' 7 59' 65" ' 5<9:' -7' <9 48:&<"' B&:A&S ;=&"5!' 45' -=B' ?<"' 4<B' : &==' :-' ?8A4' -7' 45' A-' <J-8 ' 4&?!' 4<' ' 45' <;;=&5B' 4&?:5=7' <' -"A5' -' 45' "<&-"<=' ?5 4-B:!' <"B' 8"B59 --D' -' 4<C5' (<& =<"B' D&==5B ' &:' ;9&5: 4--B' <' 7&9:' A<8:5B' 4&?' :-?5' 8"`<:&"5::!' J8 ' <' <;<=' B&:;5":<&-"' A-8=B' ?<D5' <' B55B' -7' J=--B' &""-S A5" ' 5C5"' &"' :8AA5::-9:' -7' 45' ;-:=5:' 5L 8:' ><C5' 4&?' 45' "5A5::<9 ' ;-659:!' <"B' 45' 75=' 4&:' 6<' -6<9B:' >5 &">' 45' ?89B59' <AA-?;=&:45B H

K' 45' "5A5::& '-7' 45' &?5' <"B' 45' &?? &"5" ' B<">59' ;7' <' 95C-=' &"' 4&:' A-8" 9 ' J ' 45' <;;9-<A4&">' -7' 45' ;<"&<9B:' &"' 45' <99-6' 5<:!' 4 <B5' ?5' -' ?<45' :8A4' -7759:' <:' 7-==-6' -' :<&:7 ' 4&:' &(<R5: '7-9' 45' &?5!' <"B' -' W8<=&7 ' 45' ?&"B:' -7' 4&:' 4-J&=& ' -' D55;' <==' &"' W8&5 !' 64&=5' 59' (<R5: ' 6& 4' 459' 4-"-89<J=5' -8"A&=' B-' 95:-=C5' 64<' &:' -' J5' &-"5!

' *' ' -7759' -' 4&:' (<R5: '<' B8A4 ' HB' <' 95<:-"<J=5' 95C5"85' 4595 -

' <' ' 5<9= ' ;5":&-"' -7' M+++j

' FK' -' :8: <&"' <' >8<9B' <J-8 ' 4&:' =<R5: :' ;59:-"' -7' 7&7 ' >5" =5?5"' O' A- =<"B' <"B' 45&9' A-?7<"B59:

1' ' -7759' <' 48"B95B' 4-9:5' <"B' <48"B95B' 7-- ' -' J5' =5C&5B' -"' 459' (<R5: :' A4<9>5:' -' J5' 5?;=- 5B' -"' 4&:' J-9B59:!' 7-9' 45' 95;95::&">' -7' 45' &":-=5"A ' -7' 4&:' -8 =<6:

H 45:5' -7759:' -' J5' ;597-9?5B' B89&">' 459' (<R5: :' =&75 _ ' = ' 8 2' $*' + 7 8 2' 8>' 2$*2!' *M33' = 44' 4*P*$8'()

K' " 5' -B<:' A-:<:' :59Y' "5A5::<9&-' ?< <9' 5=' B&A4-' <"A&==59!' ;-9' :59!' A-?-' 5:!' 5"' <" <' ;9&C<87<' A-"' =<' ">=5:<!' ' 5"59' <" -' ;-B59' 5"' A-B<' -' A8<=' 5=' -J&:;-' <"J&5"' ;9-?5 5' B5' ;9-A89<9!' '+(\+ ' '' 4'3)*$ ' B* \+ ' $! (' B*) ') ' +' 4'($!)')' B' '' 88* <' '!8 ' $$'((' .*8)' 'R !* ' (78' ' '8' 2' *M3N' = 44' 4! . '(3'

#

*M33
A -J59

#

*M33
A -J59

8 <?5: ;9-C5B -- & " 5==&>5" - <D5 789 459 -775"A5 < =&I<J5 4@: 95< ?5" -7 4&? 45 6<&7: <"B : 9< : -7 45 9?<B< 64&A4 6595 6<:45B - " 45 -8 &:=5: -7 A- =<"B! 6595 ;9--7 :877&A&5" - 4<C5 A-"C&"A5B < =5: : <J=5 ?<" 4< & 6-8=B J5 &? ;98B5" - W8<995= 6& 4 459 45 <::<::&"< &-" -7 (<& =<"B 6-8=B 4<C5 J55" < 6<: 5B A9&?5 <"B 45 &:4-;! <7 59 4&: J9&57 95=<;:5 &" - 6-9=B=&"5::! 7&"B&"> 4< " - 4&"> A-8=B J5 B-"5! 95 89"5B - 4&: <8: 59& &5: <"B 4&: ;9< 59:

"5 ?-95 A-":5W85"A5 95?<&":- J5 -=B 64&A4 7-=S =-65B -" 4&==&;@: B575< _ -"5 ?-95 J=-6 - 45 45-9 -7 < 4-=&A :8;95?<A <: &" 59;95 5B J ;<&"! <"B 95$! ;95:5" 5B J 45 "W8&:& &-" <"B 45 5:8& : 7 59 45 ;5<A5 6& 4 45 5<>85 &" 64&A4 45 4<B J55" A-?;5==5B -<AW8&5:A5! 45 95"A4 &"> 4<B <775A 5B -J5 95A-"S A&=5B - 45 8D5 -7 8&:5! <"B - <AA5; 4&: B575< <: A-"A=8:&C5 &9 B6<9B <77-9B! 4-65C59! 4<B B&?= &"B&A< 5B 4< <==6<: "- <: & :55?5B 5"9 4<B ;9-=-">5B 4&: 95:&: <"A5 &== 45 4<B ?<B5 & & ?;-::&J=5 7-9 8&:5 - <D5 ;<9 &" 45 &"C<:&-" -7 ">=<"B' <"B <77-9B! <: 4<: J55" <=95<B ?5" &-"5B! 4<B ;9&C< 5 &"7-9?< &-"! 4< ((8&:5@: >--B 8:<>5@ A-"A5<=5B &"S 5"B5B 95<A459 @H

<D&">A-89<>5 79-? 4&=&;@: -C59 49-6 45 &"> ?<S 895B 4&: 4<=7$7-9?5B ;89;-:5 45 -=&C5$A-?;=5L&-"5B! B5=&A< 5$75< 895B 5"9 -7 <=-&:! 6& 4 4&: B<9D =8: 9-8: 5 5:! 4&: R565==5B 5<99&">:! <"B 5?59<=B:D"- 5B &" 4&: 4<&9! ?-95 95:5?J=5B<" :&< &A 4<" < 89-;5<" 8;59S : & &-8:! B&::-=8 5! <"B A-6<9B= ! 45 A-"A5<=5B 45 ?-: B5<B= 95<A459 8"B59 75< 895: -7 &?;<::&C5 &??-S J&=& ! <"B 4&: "< 895 :5A95 5B 4< 95B <: A-J9<@: 7<">: :5A95 5 ;-&:-"

I .44&$5 & <=:&">4<?! F*$ 8> K%' &$&& _ =44 '(3 D

D5 8$D5 - 7 8&:5H <7 59 DD H7&C5 5<9:@ : ; 59&5<55 O +
- 7 4& ? ! 7 - 9 45 4<B J55" J9 - 8>&& 8 ; ->5 459 7&@ -&< A4 (H ib
4 - - B! & ? ; 5975A = 8 "B59: - - B 4&: B&: ; - :& &- " 5 D<5 6 (!"! * +"&
4& ? - J5 < A - 6 <9B 45 B&B " - D " - 6 45 5 "<A& - 7
; 89 ; - :5 - 7 64&A4 : - ? 5 4& "B: - 7 A - 6 <9B&A5 <95 A< ; <J=5
45 B575< - 7 45 ; <"&<9B: B&: ; - :5B 8&:5 - A - 8$
E 5&=&< &- "! <"B - B5=< ! < =5<: 7 - 9 < &? 5! 45 9<": 75&'$
- 4& ? :5=7 - 7 45 9 - 6 "6=&&A4 H 5 5<>85 &" 5 "B5B -
<A - ? ; b&:4 45 &">! <" &A& ; < 5B 4&: < ? J& &- "! <"B
- " 45 5R&&B - 7 5A5 ? J59! < 45 4n 5<8 - 7 =B&:!
45 B<>>59: - 7 < :A - 95 - 7 <: :<: :&": 95C5">5B D5 B<H-H - 7
=&5 J<99&A<B5: H

B / 5 . /&4 O * 7 . .*5 &
*. (& .** % 5=D** *! *3&(! $&4& 35
/ . 3 0V* 5 $ % *&3 &4 / $". 5.
* 4
0 B ?. $& (F ? 7$* . 3%/" . 3
4$&" .5$*5 . ! . 3 & &" * 5 . " &$ 5 $ /&3 . " 5F +*0 * F %F & 3 . 4. *% 3

@ 5D<">5 :5" &? 5" ! 5 B& - "W8&=
=8 S ; =8 : B ` ; =8 =< ? - & 5 B5 B5
8&:5 W85 =< ; 59 5 B5 : - " <9 ? `5! - c
< ; 59B8 ; <: :5 #&"> " * 4 - ? ? 5:
5 B5:E ; =8 : C<=&<": 5 - ; & <&": W8E&=
"C - & ` <C9< B5 = - "> 5 ? ; : @ _ u u
% 5 4 ! M3N

P

- $ E

$! 645" 45 4<C5 J9-8>4 45&9
><?5 - < ; -&" < 64&A4 45!95:8= A<" J5 7-95:55"
6& 4 A59 <&" ! 95><9B 45&9 A-" 5: <: 5"B5B! <"B :655;
45 ;&5A5: 79- ? 45 J-<9B
4<B J55" ? &" 5" &-" - A-" &"85 4&: 4&: -9 -
45 A=-:5 -7 =&I<J5 4@: =&75 45 5<9: 64&A4 7-==-65B
45 B575< -7 45 9?<B< 6595 9&A4 &" 5C5" : -7 ;9-S
7-8"B "< &-"<= &?; -9 <"A5 45 6595 5<9: -7 :;=5"S
B-89 <"B 9&8?;4 45 7=<> -7 ">=<"B J5A<?5
:8;95?5 -" 45 :5<: ">=&:4 A-??59A5 ;5"5 9< 5B -
45 7<9 45: A-?59: -7 45 =B -9=B! <"B ">=&:4
A-=-"&5: 9-- 5B 45?:5=C5: -" 45 :4-95: -7 45 56
45 "< &-"<= &" 5==5A !: 98">J 45 5LA& 5?5" -7 :&L
5<9:! --D :4<;5 &" < =& 59< 895 64&A4E &: <" 5 59"<=
;-::5::&-" - ?<"D&"B! 64&=5 45 &"A&;&5" : 98>>=5: -7
45 6- ;<9 &5: &" 45 ">=&A<" 489A4 ;95;<95B 45
6< 7-9 45 A-"7=&A : -7 45 A-?&"> A5" 89 !<"B 45
:5A-"B <A -7 45 57-9?<&-" 8 4<C5 ;95:8?5B
-- 7<9 <=95<B -" 45 7-9J5<9<"A5 -7 ? 95<B59: &" 45
=5"> 4 - 64&A4 4<C5 98"!<"B 45:5 :8JR5A :!&" 5":5=
&" 595: &"> <: 45 <95! =&5 J5 -"B 45 ;89;-:5 -7 45
;95:5" 6-9D (-JR5A ! <: B57&"5B & < 45 -8 :5 !
6<: - B5:A9&J5 45 9<":& &-" 79-? 45 < 4-4A ">=<"B
6& 4 64&A4 45 A5" 89 -;5"5B! 45 ">=<"B -7 < B-"&&$

"#$%"
&#

<" ' 489A4' <"B' ?-"<: 59&5:' <"B' ;&=>9&?<>5:!' &" -' 45'
">=<"B' -7' ;9->95::&C5' &" 5==&>5"A5"' <"B' 45' W85: &-"'
645 459' 45'"< &-"' 6<:' -' ;<::'<' :5A-"B' &?5' 49-8>4' 45'
7<9A5' -7' <' 95A-"A&=&< &-"' 6& 4' -?5!' 6<:' <":6595B' -"A5'
<"B' 7-9' 5C59' J ' 45' A<""-"' -7' &9' 9<"A&:' 9<D5' 45'
<A &-"' J57-95' 9<C5=&"5:' -7' 45' ? 4' -7' 8=!' c !B5S
A&B5B' 45' =<9>5:' ;9-J=5?:' 5C59' :8J?& 5B'&"' 45' 4&: -9'
-7' ?<"D&"B' -' 45' <9J& 95?5"' -7' 7-9A5' 5 -"B' <"B'
J5:&B5' 45' &?? 5B&< 5' 7< 5' -7' ">=<"B!' &' B5A&B5B' 4<'
4&=&;@:' 95C-= 5B' 9-C&"A5:' :4-8=B' "5C59' J5' 95<""5L5B'
-' 45' ;<"&:4' 9-6"' ' J9-D5' 45' J<AD' -7' ;<&"!'
:5<=5B' 45' 7< 5' -7' 45' 8D5' -7' 8&:5!' <"B' 4-8>4' &'
A-8=B' "-' ;95C5"' 45' A&C&=' 6<9!' &' <::895B' 45' 8=&?< 5'
:8AA5::&-"' -7' 45' &">' -7' <C<995' "' &:' 95?-59' A-"S
:5W85"A5:' &' B5 59?&"5B' 45' 7< 5' -7' 45' 57-9?< &-"' &"'
59?<" " 7-9' 4<B' 4&=&;' J55"' C&A-9&-8:!' 45' 5<>85'
?8:' 4<C5' J55"' &??5B&< 5=' 9&8?;4<" " 45' ;-659'
-7' 9<"A5' 6-8=B' 4<C5' J55"' -"' 45' :&B5' -7' ;<&"' <"B' 45'
5:8& :!' <"B' 45' 4&9' 5<9:@ 6<9' 6-8=B' 5& 459' 4<C5' "5C59'
J55"' J5>8"!' -9' 6-8=B' 4<C5' J55"' J9-8>4' -' <:6&7' A-"S
A=8:&-"' '789"&:45B' <?5:' -7' A-=<"B' 6& 4' A-"A=8:&C5'
5<:-":' 7-9' 95?<&"&">' < 9-5: <" !' <"B' 7-9' 5:A456&">'
7-9' 45' 78 895' 45' 7-9J&BB5"' 798&' -7' -;59 ' <"B' 48:'
':5A895B' 4&:' 9<"W8&=' <AA5::&-"' -' 45' 49-"5' -7' ">S
=<"B' 645"' =&I<J5 4' ;<::5B' <6<' &"<== !' &' 6<:' 45'
59?-"' 64&A4' A-?;=5 5B' 45' A-"C59:&-"' -7' 45' ">=&:4'
J<&-"!' <"B' 9<":7-9?5B' 45' <4-=&A:' &" -' ">=&A<":
45' ;<9 &5:' &" -' 64&A4' =&I<J5 4' 7-8"B' 459$:8JR5A :'
B&C&B5B' <' 459' :&: 59@:' B5< 4' 4<B' 4& 45R K -' :8J:&: 5B' 6& 4'
45&9' 95=< &C5' "8?J59:' "-' ?< 59&<==' <= 595B' ">=&A<"'
&>4' 489A4' 45-=-> ' 4<B' <:' 5' "-'>5"59<=' <AA5; <"A5'
@ &C&"5:'@ =&D5' 4& >&7 !' 64-' :-8>4' 7-9' 7<C-89' <"B' ;9-$
J&-&-"!' ;9-75::5B' 45' 45-9' -7' 45' #&<' (5B&<!' J8' 45

&' J 4<B "- "< &-"<= 7-==-6&">! <"B ;594<;: B&B "- <= -S
>5 459 J5=&5C5 &"& 45?:5=C5: 45 :&"A595 64- 6595
"- 9- 5: <" : 6595 < 4-=&A:_ 5& 459 95A8:<" : 64-
;9575995B 45&9 A-":A&5"A5 - 45&9 ;9-;59 ! -9 :A4&:S
?< &A: 64- < 5"B5B 45 ">=&:4 A489A45: 8"B59 ;9-S
5: ! - 5:A<;5 ;< ?5" -7 45 7&"5:" <"B -"5 <: 65== <:
45 - 459! 4<B =--D5B 7-96<9B - 45 95$5: <J=&:4?5" -7
-9 4-B-L ! 645" 45 %855"@: B5< 4 :4-8=B -;5" 45 6<
- < A4<">5 P"& 5B 45 : &== =<9>5= -8 "8?J595B
45&9 -;;-"5" :!<"B 8"B59 45 ?-B59" A-": & 8 &-" 45
6-8=B 4<C5 95 89"5B < =<9>5 ?<R-9& - <9=&<?5"
8 <9=&<?5" 6<: <: 5 45 A-8"A&==-9 9< 459 4<"
45 ?<: 59 -7 45 -C595&" 45 -;;-"5" : -7 45
%855"@: ;-=&A 4<B "- :-8>4 7-9 :5< : 4595! <"B 4<B
;9575995B - 6<& W8&5 = 7-9 (<9 8<9 @: <AA5::&-"
0 7 59 459 B5< 4 45 4<B J55" 5?J<99<::5B J 45 ;95S
5":&-": -7 4&=&; 45 4<B J55" 8"A59 <&" 4-6 -
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<: 495< 5"&"> ">=&:4 &"B5;5"B5"A5! 45 4<B J55"
8"<J=5 - <D5 < ;<9 45 A-?&">$-7 45 9?<B< HC<:
<" <;;5<= -" J54<=7 -7 45 -;5 -$45 -9B5<= -7 J< =5!
<"B 45 B575< -7 ;<&" 6& 4 & : <;;<==&">75< 895:! 45
=5 &">=--:5 -7 45 ;-659 -7 45 5?;5: :_ 45 :;5A&<=
65<;-": -7 45 =?&>4 _ - 7&"&:4 45 6-9D 64&A4
9<D5 4<B J8 4<=7 A-?;=5 5B! 6<: <AA5; 5B <: < 95S
A-9B5B R8B>?5" -7 45<C5" 45 ?<>"& 8B5 -7 45
A< <: 9-;45 --D ;-::5::&-" -7 45 "<&-"@: &?<>&"<&-"c
<"B 45 ?-95 ?-B59< 5 < 4-=&A:! 45 D"&>4 : <"B
:W8&95: 64- 6595 :A< 595B -C59 45 :4&95:! 9<":7-9?5B
45?:5=C5: &" - < 4-=&A: 6& 4 < B&77595"A5_ ">=-$
< 4-=&A: -9 &>4 489A4?5"

<B 45 J< =5>-"5 45 - 459 6< ! <9?< 6-8=B 4<C5
J9-8>4 4&:<9? &" - 5" " <"B J <;;-&" &"> 5&A5: 59

<:' -?? <"B59$&"$ =&&57!' 45' %855"' 4<B' B-"5' <=' 4<' '=<' ' - #$
&"' 459' -' &"A95<:5' 4&:' A4<"A5:' -7' :8AA5::' <B' 45'
A-8" 9' 95?<&"5B' : <8"A4!' -"5' C&A -9' -9' 6-' 6-8=B'
"-' 4<C5' 5":895B' 4&:' 9&8?;4'' J8' <' B575<' -7' 45' 9-S
5: <" :!' J- 4' J' :5<' <"B' =<"B!' 6-8=B' 4<C5' 6-9D5B'
B<">59-8:=' &"' 45' "-9 459"' A-8" &5:'' A- =<"B' 6-8=B'
:A<9A5=' 4<C5' 95?<&"5B' W8&5 !' <"B' 45' 8D5' -7' 8&:5'
6-8=B' 4<C5' 4<B' =5&:895' <"B' -;;-9 8"&' -' :9&D5' &"' 7-9'
<':4<95' -7' 45' :;-&=' '6-9:!':-' :D&=78=' <'A-??<"B59'
<:' <9?<'6-8=B';9-J<J=' 4<C5' J55"' <J=5' -' 95$5?J<9D!'
4<C&">' &"7=&A 5B' 5"-9?-8:' &"R89 !' 4<C&">' :4<D5"' 45'
;95:&>5'-7':8AA5::'64&A4'4<B'4& 459 -' A=8">' -' =&I<J5 4'
:-' 95?<9D<J=!'<"B'6-8=B'4<C5' 89"5B' 45'J<=<"A5' -7' 45'
&?<>&"<&-"_<' :8A4' &?5:' <';-659' -7' 5"-9?-8:'7-9A5'
_-"' 45' <4-4A':&B5' <B' 45' 9?<B<':8AA55B5B' 5C5"'
&"' B575"B&">'&:5=7!'4-8>4'8"<J=5' -' B9&C5' 45' ">=&:4'
79-?' 45' :5<:!'&'?&>4'4<C5'7-9A5B'&:'6<'&" -' 45'
A45=B!'-9'&'?&>4'4<C5'>-"5'8"J9-D5"' -' 45' &9 4'-7'
-9 4'' &"' 45' -"5' A<:5' -' -C5964 5=?' 45' 9-C&"A5:!'&"'
45'-459' -'A95< 5'd"'&?? 5B&< 5'95C-=8 &-"'&"' A-=<"B!'
<"B'95: -95' 45' &">'<"B' 45'A-8" 9' -' 45'A-" 9-=' -7'
45' <4-=&A' "-J&=& ' 7' 45'5"-9?-8:'95:-89A5:'-7' 45'
7=55'4<B'J55"' ?<B5'<C<&=<J=5'5& 459' 48:'-9'&"'<" '6<'
-' 45' 489A4@:' A<8:5!'&'&:' =&D5=' 4<' :--"59' -9' =<59'
45' <4-=&A' B5:;-&:?'6-8=B' 4<C5' J55"' 95$5: <J=&:45B'
5C59 64595!'<"B' 4<' 45'7&9:'>95<'57=-9'7-9' 45'5?<"$
5&;<&-"' -7' 89-;5'?&>4'4<C5'7<&=5B

' 6-8=B' 4<C5' :&=' J55"' J8' <' W85:&-"' -7' &?5'
#&-=5"A5' ?<' A-": 9<&"' 45' -8 59' :45=' <"B' 7-9?' -7'
4&">:' ' A<"' 6&"' 45' <AW8&5:A5"A5' -7' 7--=:' <"B' 45'
H;;=<8:5' -7';<9<:& 5:' ' A<"' D&=' 4-:5' 64-' B&:;8 5'&:'
A-??<"B:' 8'&'A<""-'?<D5' 98 4'&" -' 7<=:54--B!' -9'
7<=:54--B'&" -' 98 4' ' ?<' 95;=<"' <' B5<B' 955!' <"B

- AL8$ &":&: 4< &: 4<== J5 A-":&B595B <:<=&C5! J8 & A<""- >&C5 J<AD -45 955 & :C& <= 78"A &-":! -9 <995: 45 =<6 J 64&A4 & 4<: J55"": 5" 5"A5B -B5: 98A &-" 4< 64&A4 &: B5<B &: B5<B! <"B 4< 64&A4 &: B5<B B5S A< :! <"B 45 :D&=78==5: 5?J<=?&">6&== "- :<C5 &'79-?' 7<==&">&" -B8:

8 &7 7-9A5 A<""- 95: -95 B5;<9 5B C& <=& ! & A<" A45AD 45>9-6 4 -7 64< &: :;9&">&">8; <"B B&: -9 45 7-9?' 64&A4 & :4<== <::8?5' -45 A-8" 9&5:' 64&A4 95S R5A 5B 45 57-9?< &-"! 7955B-?' "5C59 -77595B & :5=7<><&" &" 45 B95::' -& <;8959 95=&>&-" '95 89"5B 8;-" 45?' <:' 95C-=8 &-"! <: 45 "5>< &-" -7 <== 95=&>&-" " 8:S 9&<! &" ;<&"! &" 9<"A5! &" <= ! 45 489A4 4<: J55"" : 9&;;5B : 5;' JV#H: 5;' -7 & :' 65<= 4! -7 & :';-659! 5C5"' -7 & :' A-" 9-=-C59 45 5B8A< &-"' -7 45 ;5-;=5' 9<A &A<= =&75 4<:' J5A-?5 :5A8=<9&:5B! <"B A8= 895 <"B &" 5==&>5"A5 4<C5 A5<:5B -&" 595: 45?:5=C5:' &"' < A955B 64&A4 45 "-'=-">59 J5=&5C5' -A 9&"5 ?< 'J5 ;&=5B 8;-" B-A 9&"5' 45 =<& '<95 A-" 5?; 8-8:= '&"B&77595" ! <"B =5<C5 45 ;9&5: :' &"' ;-::5::&-"' -7 45 7&5=B &"' 64&A4 95<:-"<J=5 ?5"' 4<C5 A5<:5B -' 5L;5A ' <" '>--B 4&">' -'>9-6 ' 4&:' &:' 45 -"= '798& '-7 45 <4-=&A 95<A &-"' -7 45 :&L 55" 4 A5" 89 ! -7 <== 45 577-9 :' -7 45 5:8& :' <"B 45 "W8&S :& &-"! -7 45 -8"A&= -7 95" ! 45 ?<::<A95 -7 ' <9 4-=-?56! <"B 45 95=&>&-8:' 6<9:' -7 4&=&;'

7 45 :<?5 ;45"-?5"<'<95 J5>&""&">' -' J5 C&:&J=5' &"' ">=<"B 45 '4<C5 <;;5<95B <:' 5 '&"' <'=5::' <>>9<C< 5B 7-9?' 45 ' <95 ?<"&75: &">' 45?:5=C5:' <' ;95:5" ! A-&"A&B5" ' 6& 4 45 95;8B&< &-"' J ' 45 A=59> ' -7 45 ;9&"A&;=5:' -7 45 57-9?< &-"'R <"B &7 45 A=59> '<95 ;59S ?& 5B -' A<99 ' 49-8>4 45&9 < 4-=&A Q95C&C<=!@ 45 B&C-9A5 J5 655"' &" 5==&>5"A5 <"B 49&: &<"& ' 6&== J5 <:' A-?;=5 5 <?-">' -89:5=C5:' <:' & ' &:' 5=:564595' J8 '65

4<C5' J55"' 5L5?; 5B' 4& 459 -' J ' 45' 577-9 :' -7' 4-:5' -LA9 8$ 2
J&&<C5' ?5"' 64-:5' ;59:5C59<"A5' <"B' C&A -9 '&' 4<:' J55"'
? '; 9&C&=5>5'&"' 45:5' ;<>5:' -' B5:A9&J5!' <"B' 8"=5::' 65'
<95' 8"6-9 4 ' -9' B5>5"59< 5' &'&:' "-' 5 ' --' =< 5' 7-9'
8:' -' :<C5'-89:5=C5:

5=&>&-"' &:' 45' < & 8B5' -7' 95C595"A5!' &"' 64&A4'
"-J=5$?&"B5B' ;5-;=5' &": &"A &C5= ' ;=<A5' 45?:5=C5:' -$'
C<9B:' 45' P"D"-6"' -659' 64&A4' ?<B5' ?<"' <"B' 4&:'
B65==&">$;=<A5' ' &:' 45' "< 89<=' <AA-?;<"&?5"' -7'
=&5&9' =&C5:!' 45' :<"A &7&A< &-"' -7' 45&9' <A &-":' <"B' 45&9'
<AW8&95?5" :' ' &:' 64<' >&C5:' -' ?<"!' &"' 45' ?&B:' -7'
45' 95:' -7' A95< &-"!' 4&:';5A&<=' 5=5C< &-"' <"B' B&>"&

AA-?;<" &">' -89' 9<A5' <:' &' 4<:' B-"5' 79-?' 45'
A9<B=5' -7' A&C&=&:< &-"!' &' 4<:' >9-6"' 6& 4' -89' >9- C 4!' &'
4<:' 5L;<"B5B' 6& 4' 45' 5L;<":&-"' -7' D"-6=5B>5!' :8JR5A'
-"=' -' 45' A-"B& &-"' 4<' 645"' 599-9:' 4<C5 J55"' &"A-9S
;-9< 5B' &"' 95=&>&-8:' : : 5?:!' 45' 4<C5' J55"' 5LA5;$'
&-"<==' 5"<A&-8:' -7' 45&9' >9-8"B' & 8<=:' <"B' A955B:!'
A95< 5B' J ' 45' ;&5 ' -7' A-": 98A &C5' <"B' B5C- &-"<=
<>5:!' 4<C5' J5A-?5' :-' ;95A&-8:' 645"' -"A5' <AA5; 5B!' 4<'
&' 4<:' J55"' 45=B' :<A9&=5>5' -' -8A4' 45?' 45' 4<C5'
J55"' >8<9B5B' J ' :8;59: & &-"' <"B' :5<=5B' <><&": ' A4<">5'
J ' <"< 45?<' 45' 5 59"<=' "< 895' -7' 45' JR5A' -7' -89'
E5C595"A5' 4<:' J55"' < 9&J8 5B' -' 45' 7-9?:' 8"B59' 64&A4'
&' 4<:' J55"' <B-95B!' <"B' 8"<J=5'"- 6& 4: <"B&">' -' 5:A<;5'
45' A4<">5:' 64&A4' 45' B5C5=-;?5"' -7' D"-6=5B>5' &?$'
& -:5:' 8;-"' & !' 95=&>&-"' 4<:' <BC<"A5B' "-' J ' 5<: ' <"B'
< 89<=' 9<":& &-":!' J8' J ' :8AA5::&C5' 95C-=8 &-":!'
#&-=5"' =5<;:!' :;<:?-B&A' <"B' ;<::&-"< 5' A-"C8=:&-":'
;&"&-":'7-9?5B!' -9' 7<A :' J5=&5C5B!' &"' 45' &? ?< 89& ' -7'
L;59&5"A5!' J5A-?5' &"A95B&J=5' 645"' :55"' -' J5' -8' -7'
4<9?-" ' 6& 4' =<9>59' <"B' ?-95' 5L<A' &"7-9?<&-"!'
&H&5 !' 45' 6&"' J9-459' -7' :A&5"A5!' 5"B:' <' :8A4' &?5:

P$ -' J5' 45' >8<9B&<"' -7' 599-9' -C5' -7' 98 4' &:' 7-9A5B' &" -' 8" "< 89<=' 4-: &=& ' 6& 4' 45' C&9 85' 64&A4' &:' -"= ' :5A-"B' -' & !' <"B' 45"' A-?5' 4-:5' & &">' ;59&-B:' -7' 48?<"' 4&: -9 !' 645"' B5C- &-"' <"B' &" 5==&>5"A5' <; ;5<9' -' J5' -; ; -:5B!' <"B' 45' ?5 <=' -7' 64&A4' ?5"' <"B' "< &-":' <95' A-?; -:5B' &:' :8J?& 5B' -' <' A98A&<=' 5: ' 4-:5' 64-' <B4595' <' <==' A-: :' -' 98 4!' 64-' A=&">' -' 459!' 4-8>4' :45' =5<B' 45?' &" -' 45' 6&=B59"5::!'7&"B' J5 -"B' &' <' ;9-?&:5B' =<"B' 64595' <==' 4<' 45 ' :<A9&7&A5' &:' 95: -95B' -' 45?' 4-:5' 64-' 49-8>4' :8;59: & &-"!' -9' &?&B& !' -9' ;-=& &A<=' A-"C5"&5"A5!' -9' ;&-8:' 755=&">!' A=-:5' 45&9' 5 5:' -' 7<A !' 64-' A=&">' -' 7-9?:' 64&A4' 4<C5' J5A-?5' :4<B-6:!' <"B' &"C5" ' 95<:-":' 7-9' J5=&5C&">' 64<' &:' 5::5" &<== ' "-' =-">59' A95B&J=5!' 5:A<;5' <' ?-?5" <9 ' 9&<=' -"= ' 4<' & ' ?<' 95 89"' 8;-"' 45?' <><&"' &"' <' 4<9B59' <"B' 4<9:459' :4<;5' 45 ' :8995"B59' 45?:5=C5:' -' A-":A&5" &-8:' 5?- &-":!' <"B' 45 '7-975&' 4-:5' C59 '5?- &-":'7-9' 64&A4' 45 ' <95' :<A9&7&A&">' 45&9' &" 5==5A 8<=' 4-"5: ' <:' 45' -JR5A' -7' 45&9' 95C595"A5' J5A-?5:' ?-95' ;<=;<J=' <"' &B-=$' 4&=5' 45' 489A4' -7' -?5' &:' =-:&">' 45' A-8" 9&5:' 64&A4' &' ;59:8<B5B' -' 9578:5' 45' 57-9?<&-"!' &' 5L8= :' &"' 45H A-"C59 :' 64&A4' &' &:' 95A-C59&">' 79-?' 45' "< &-":' 64&A4' J5A<?5' 9- 5: <" ' '7<&=:' -' :55' 4<' &:' :8AA5::' &:' &:' B55;5:' A-"B5?"< &-" ' 9- 5: <" &:?' <=-"5' 4<:' D5;' <=&C5' 45' :5" &?5" ' -7' ;&5 ' 64&A4!' 645"' <==&5B' 6& 4' 65<D"5::' -7' &" 5==5A !' &:' 45' "< 89<=' ;95 ' -7' :8;59S :&&-"

=6< :' <"B' 5C59 64595!' 5C5"' <?-">' 45' J9<C5:' ;5-;=5:!' 45' ?<R-9& ' <95' :;&9& 8<=' A-6<9B:!' <"B' 4<B' ">=<"B'&"' 45' :&L 55" 4'A5" 89 'J55"'>-C59"5B' J '8"&S C59:<=':8779<>5!' 45' -?<"' < 4-=&A' : : 5?!'A-":&B595B' <:' <' 98=5' -7' -;&"&-"!' A-8=B' "- ' 4<C5' J55"' -C59 49-6"' 6& 4-8 'C&-=5"A5 ' 45' <==5>&<"A5' -' 45' <;<A ' ?&>4 ' 4<C5' J55"' 95"-8"A5B!' 45' 489A4' A-89 :' ?&>4 ' 4<C5

J55"' 7-9A5B' -' A-"7-9?' 45?:5=C5:' -' 45' -9B&"<9 ' 98=5:' /+&!
-7' R8: &A5!' J8 ' 9<":8J: <" &< &-"' <"B' & :' D&"B95B' B-A$ $$$$$$
9&"5:' 6-8=B' 4<C5' 8"B-8J 5B= ' 95?<&"5B' &"' 45' A955B!
k 6&49-;5' <"B' 7<>>- ' 7-9' & :' :<"A &-":' -C59"?5" ' J '
:8779<>5!' 4-65C59!' &:' ;-::&J=5' -"= ' &"' ;59&-B:' 645"' 45'
A-"C&A &-":' -7' ?5"' 4<C5' A5<:5B' -' J5' C& <=' -' 45?' :'
=-">' <:' 4595' &:' <' ?&"-9& ' 64&A4' 6-8=B' 9< 459' B&5' 4<"'
A-" &"85' &"' <' =&5!' 4595' &:' <' 789 459' A-89 ' -7' <;;5<=' 79-?'
64&A4' 4595' &:' "-' 957595"A5' 45"' 5"' ?5"' <95' :-'
5<9"5:' -"' -"5' :&B5' 4<' 45 ' 6&==' :--"59' J5' D&==5B'
4<"' >&C5' 6< !' <"B' 65" ' <95' 5<9"5:' 5"-8>4' -"' 45'
-459' -' A<:' 45&9' C-5:' 7-9' & !' J8 ' 6&==' "-' 9&:D' 45&9'
:D&":!' 45' 5"' 6&==' >&C5' 45' =<6' -' 45' 65" ' &"' C&9 85'
-7' <' 9-J8:59' 7<& 4' <"B' -7' 45' :95"> 4' 64&A4' >-5:'
<=-">' 6& 4' & ' 57 ' <=-"5' 45957-95!' <"B' 6& 4-8 ' &" 59S
7595"A5' 79-?' <J9-<B!' 45' ">=&:4' "< &-"!' 4<B' 4595' J55"'
"-' =&I<J5 4!' 6-8=B' ;9-J<J= ' :--"59' -9' =< 59' 4<C5' <D5"'
45' 57-9?&">' :&B5' <B' 45' ;<"&:4' &"C<:&-"' :8AS
A55B5B!' 4-65C59!' 4<B' & ' :8AA55B5B' 5C5"' ;<9 &<== ' &"'
A98:4&">' -==<"B' <"B' >&C&">' 9<"A5' -' 45' 5<>85' <"B'
45' 8D5' -7' 8&:5!' ">=<"B' ?&>4 ' "-' 4<C5' 95A-C595B'
79-?' 45' J=-6!' <"B' & ' ?&>4 ' 4<C5' 7<95B' 6& 4' 58 -"&A'
89-;5' <:' & ' 7<95B' 6& 4' 9<"A5' -"' 45' 95C-A< &-"' -7'
45' B&A ' -7' <" 5:' & 459' 9-5:<" &:?' 6-8=B'
<C5' J55"' 9<?;=5B' -8 ' <= ->5 459!' -9' 5L;5==5B' 79-?'
89-;5' -' 7&"B' <' 4-?5' &"' <' "56' A-" &"5" "' <"B' 45'
489A4!' &":-=5" ' 6& 4' <"-459' A5" 89 ' -9' 6-' -7';-659!'
C-8=B' 4<C5' J55"' =57 ' -' 5"A-8" 59' 45' &"5C& <J=5' 8=&$'
4&< 5' 95C-=8 &-"' 64&A4' &:' "-6' & :' 599-9!' 6& 4' "-' 95S
7-9?5B' 49&:&<"& ' :89C&C&">' -' 4-=B' 45' J<=<"A5'
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J&:45B' J ' 45&9' -C595&>"' 4<' 45 ' 6595' -J=&>5B' -' <D5'
7K-?' 45&9' 5"5?&5:' 45' ?5<":' -7' 7&>4 &">' 45?H' B5A&B5B

/+&! - 4596&:5" 45 ' <"B 45 6&"B:' <"B 45 6<C5:! 64&A4 <95 :<&B 5C59 -' J5 -"' 45 :&B5 -7 45 J9<C5 ' "' 45&9 C&A -9 ' 45 ' A-"W8595B "- ' 45 ;<"&<9B:' -"= ! J8 ' 45 65<D"5::' -7 45&9%855" ' & 459 :45 4<B J55"'&"A95B8=-8:' J57-95 4< ' 4&=&;' 6-8=B &"B55B &"C<B5 459! -9 :45 4<B 8"B599< 5B 45 ;-659 -7 459 ;5-;=5 ' -9 :45 B&:A59"5B 4< ' 45 B5: 98A &-"' -7 45 ;<"&:4 7=55 ' 4<B A95< 5B < ' =<: ' <"' &995;<9<J=5 J95<A4 6& 4 45 < 4-=&A >-C59""&5" : ' ' <" ' 9< 5 4595 6<:' "-' ?-95 8"64-=5:-?5 4<"D59&">' <7 59 A-?;9-?&:5! "-' ?-95 8"W855"= ' <C<9&A5 -9! 95=8AS <"A5 -' :;5"B 459 95<:895 &"' 45 A<8:5 -7 7955B-?' 45 : 95"> 4 <"B 95:-89A5:' -7 ">=<"B 6595 7=8">' 45<9 &= ' &" -' 45 6<9! <"B <==' 45 ?5"' <"B <==' 45 ?-"5 ' & ' A-8=B :;<95 6<:' >&C5"' 7955= ' -' 45 P"& 5B 9-C&"A5:' <"B 45 <">' -7 <C<995 ' 45 : 98>>=5 =<: 5B &" -' 45 A-?&">' A5" 89 ' =&I<J5 4 "5C59 :<6 ;5<A5 6&& 4 ;<&"' <><&" ' 8 ' 45 "< &-"' 49-C5 6& 4 & :' >< 459&">' >=-9 ' 45 6<9 -"' 45 ;<9 ' -7 ">=<"B 6<:' <>>95::&C5 45"A57-96<9B ' "5 ?-95 >95< ' < 5?;' 6<:' ?<B5 J ' 4&=&;' &"' 95=<"B! J8 ' -"= ' -' 7<o ?&:59S <J= ! <"B 45 :4-95:' -7 ">=<"B 6595 "5C59 :59&-8:= ' 495< 5"5B <><&" ' -9 8><=' 6<:' &"C<B5B! <"B <B&5 J89" ! ;<"&:4 A-??59A5 ?<B5 45 ;95 ' -7 ;9&C< 559:! <"B 45 ;9-8B ><==5-":' A4<:5B 79-?' -77 45 -A5<" ' "' 45 -6 -8" 9&5:' 45 &B5 -7 95A-"W85: ' 4<B 95<A45B & :' 7=--B! <"B 45"A57-96<9B 5JJ5B :=-6= ' J<AD! 64&=5 &"' 9<"A5 45 ">=&:4 <"B 45 8>85"- :' 7-8>4 ' :&B5 J ' :&B5 <><&": ' 45 5<>85 <"B 4&=&;

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A955B' -7' 45' ?<R-9& ' -7' 4&:' :8JR5A :' ' 6<:' < A985=' 2+ '
B&:<;;-&&& ?5" ' -' 45' 7&59A59' <"B' "-J=59' "< 895:' 64&A4' _ _'
4<B' : --B' J '4&?' B89&">' 45' 5<9:' -7' 4&:' 9&<=!' J8 '&'
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45' 57-9?< &-"' &"' ">=<"B' 6<:' :<75' 45"A57-96<9B'
79-?' A-" &"5" <=' : ?;< 4&:59:' 6& 4' &:' &" 59"<=' 5"5?&5:
' 95?<&"5B' -' 95-9><"&:5' 45' 5?;-9<=' <"B' :;&9& 8<='
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45<= 4' -7' 45' A-8" 9 '4<B' &"A95<:5B' 5"-9?-8:= ' 45'
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45' &"7=8L' -7' 45' 9-5: <" ' 5L&=5:!' :D&=78=' 5"59>5 &A'
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5 ' 45' &"A95<:&">' 65<= 4' 4<B' J9-8>4 '& :' :4<B-6' 6& 4'
' &"' &"A95<:&">' B5: & 8 &-"' B8= 59< &-"' <"B' 79<8B!'
45' J5:5 &">' :&":' -7' ">=&:4' 9<B5:?5"!' 4<B' 98"' 9<?$

/+&!S ' /

;<" ' &"" 45 B&: -9><"&:< &-"" - 7 45 <"A&5" ' >8&=B: ' 6 - 5<9:' J57-95 45 A- ?&">' - 7 45 9 ? <B< Q ? -95 7<=:5 Q A=- 4 <"B 6 - -==5"' 6<:' ? <B5 &"' ">=<"B 4<"" &"' <== Q 89- ;5 J5:&B5: @H 45 <>>95>< &-"" - 7 7<9 ? :' 4<B 95S A- ? ? 5"A5B <7 59 45 A45AD 64&A4 4<B J55"" & ? ; - :5B 8 ; -"" & ' < ' 45 J5>&""&">' - 7 45 95&>" ' 45 : ? <== 4 - =B&">:' 4<B J55"" - "A5 ? -95 B5C - 895B J ' 45 =<9>5 ' 45 =<J - 89S &">' ;5<:<" :' 4<B J55"" 48BB=5B &" - ' C&==<>5:!' 64595!' 6 & 4 "-' - 459 5"5?5" ' J5 - "B 45 9 - - ? :' 64&A4 45 ' - AA8S ;&5B!' 45 ' 6595 :8; ; - 9 5B - "= ' J ' B<&= ' - 9 655D= ' 6 <>5:' 64&=5 49 - 8>4' "5>=5A ' &"' 5"7 - 9A&">' 45 < 8 5 - 7 <J - 8959:!' 45 ' 4<B J55"" B9&C5"" - ' <AA5; ' :8A4 6 <>5:' <:' 45 5? ;=- 59:' 6 - 8=B >&C5!' 9< 459 4<"' 45 7<&9 <"B R8: ' 5W8&C<=5" ' 7 - 9 45&9 6 - 9D 64&A4 & ' 6<:' : &== 45 45 - 9 ' - 7 ">=&:4' =5>&:=< - 9:' 4< ' 45 ' - 8>4 ' - ' 95A5&C5 ' ' &:' &" 595: &">' - ' - J:59C5 4< ' - "' 45 95 89"" - 7 A - ?S ; - :895 <"B A - "7&B5"A5 45 <9=&< ? 5" ' 8"B59 - - D - ' B5<= 6 & 4 45:5 B&: - 9B59:' - "' 45 - =B ;9&"A&; =5 ' 5:&B5:' : 9&">5" ' ? 5<:895:' - ' A45AD <B8= 59< &-"" <"B 7<=:5 65&>4 :!' <"' A ' 6<:' ;<::5B 4< ' 7 - 89 <A95:' - 7 =<"B :4 - 8=B J5 < <A45B - ' 5C59 ' A - <>5 &" 5"B5B - ' J5 - AA8; &5B J ' <"' <>9&A8= 89<= =<J - 8959!' 7 - 9 45 8:5 - 7 4&?

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<"B 4&:7<?&= H " - 459 A 95&":&: 5B -" 45 J95<D&"> /+&,
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45 >9-8"B:' -" 64&A4 45 <>>=-?59< &-" 6<:' B&:<;S
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5"R-&"5B O

4&=5 <9=&<?5" 6<:' J8: 6& 4 45 A-"B& &-" -7 45
;5-;=5! 45 A-"A59":' -7 45 489A4 6595 <D5" &" 4<"B
J 45 %855" 459:5=7 5<=-8:' -7 64< :45 A-":&B595B
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4 F* ,)1'2!#+ '"'-' ,' OEK' =&I<J5 4! A<;' &I'' R <?5:!
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x-LA 9$ -" 45 : < 8 5 J--D ' J8 ' & ' 4<B J55" -J5 5B -9 B&:-J5 5B!
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- 6H4&A4 45 ' 6595 ;<::&-"< 5= ' 5"B5<C-89&"> - A-"S
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64&A4 :45 6<: B9&C5" <><&": ' 45 :5?&"<9 ' ;9&5: :! <"B

45' A-":A&-8:"5::' 4<' 45' 9- 5: <" :' 6595' 45' -"=' /+ !'
:8J?5A :' 4<' :45' 4<B' -"' 64-:5' =- <= ' :45' A-8=B' 95= !' _ _'
4<B' ;95C5" 5B' 459' 4& 459 -' 79-?' : : 5?< &A<==' 95;95::S
&">' 45' 89& <"' &995>8=<9& &5:'' J8' =<5' ;-659' -' ;59:5S
A8 5' 4<B' J55"' 6<" &">'9< 459' 4<"' 45'&"A=&"< &-"' 45'
&:4-;:' 6& 4'64-?':45'4<B'7&==5B' 45':55:'<'459'<AA5::&-"'
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8"B59' 459':&: 59' 45'6595' <=C&"&: :'-9' 8 459<":!'
6& 4' "-':;5A&<= 95C595"A5'7-9' 45'-77&A5'64&A4' 45'4<B'
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A-" 5?; ' 45'A<==5B' 45?' -A -9:!' <:' 45'4&>45:' & =5'
-'64&A4':45'A-":&B595B' 45?' -'4<C5'<" '95<=9&>4 '' &7'
45' B&:;8 5B' 459' ;=5<:895' :45' 495< 5"5B' -' 8"79-AD'
45?'' &7' 45' :4-65B' 45?:5=C5:' -77&A&-8:'&"' ;8"&:4&">'
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H"B' &7' 45&9' 9- 5: <" &:?' 6<:' A-":;&A8-8:=' 5<9"5:!'
45' 6595'B5;-:5B'<"B'&?;9&:-"5B

48:!' 6& 4' 45&9'78"A &-":' 95B8A5B' -' I59-!' 45' "S
>=&A<"' ;95=< 5:!'=&D5' 45'95:' -7' ">=<"B!' 4<B'=--D5B'7-9'
?<'A4<">5!? <"B' ;95;<95B'7-9'&' & 459' 45' J5A<?5'
H5<' 7<9?59:' <"B' >9<I&59:!'=&D5' 45' &:4-;' -7' = '' -9!
#' 5C<:&-":' -7' 45' :<8 5!' 45' 5"9&A45B' 45&9'7<?&=&5:'
H&4' 45'5:<5:' -7' 45&9':55:'' -9' 45' :-=B' 45&9':;&9& 8<=
78"A &-":!' :-=B' =&A5":5:!' :-=B' B&:;5":<&-":!' <"B' ?<B5'
49&5:' 7-9' ?-"5' ?' -7' 45' =-65:' -7' 45' ;5-;=5 ' 45'
K4<B5' &' &?;-::&J=5' &"' 95 89"' 7-9' 45' 9- 5: <" :' -'95S
:;5A' -9'A<95'7-9' 45?' & 4' 45&9' &"5775A 8<=& !' 45&9'
H&?-" !'<"B' 45&9'6-9=B=&"5::!' 45' J9-8>4' 45?:5=C5:'
EH"B' 45&9' -77&A5' &" -' A-" 5?; '' <"B' ?5"' 64-' 6595'
9 &">'95:-=8 5=' -'4<C5'B-"5' 6& 4'=&5:'<"B' B&:4-"5: !'
H"B' -'8:5' 45' &J=5'95<==' <"B' 98=' <:'<'>8&B5' -'6<=D'
& !' A-8=B' "-' 95A->"&:5' 45' &?;-:& &-"' -7' 5;&:A-;<='
E "B:'<:'A-"C5 &">' 45' :-=5' & =5' -'J5'<' 5<A459' &"' 45'
489A4' 45'C59' ?5 4-B' &"' 64&A4' 45' &:4-;:' 6595

P$ <; ; -&" 5B_ 4!5 A-">`  B@`=&95! 45 B5<": <!"B A4<; 59:
?55 &">! 6& 4 < 95?8"&95 9-8"B 45&9 "5AD:! <"B >-&">
49-8>4 45 7<9A5 -7 <" &"C-A< &-" -7 45 -= 4-: !
<; ;5<95B <4-99-9 <"B <J=<: ;45? -5C59 -"5 64- J5S
=&5C5B -B B J5 95<== <=&C5 45 -9B59!<"B 45 : : 5?
B5;5"B&"> 8; -"& ! 6<: ;<::&"> &" - B&:95;8 5!<"B 45
5"B5"A -7 5C59 :&"A595 ">=&:4 9- 5: <" 6<: -S
6<9B: <" -9><"&:< &-" =&D5 4< -7 45 &&@D -7 A- =<"B
- ;59?& 45A-==<; :5 -7 45 &:4-; :! 4-65C59! 6-8=B
J5 - <J<"B-" 45 ">=&A<" ; -:& &-" 95:J 59 <:
:8A4 6<: B5 5: <J=5 - =&I<J5 4 45 95A->"&:5B "-
<8 4-9& &" <" ?<" <: B59&C5B 79- ? < :-89A5 B&: &"A
79- ? 459:5=7! <"B :45 <B4595B 95: -=8 5= - 459 -6" ;89S
; -:5 - =- "> <: 459 -6" A9-HCH= 6<: 8":<75 :45 B&B "-
C5" 895 -" <" >5"59<= ;59:5A8 &-" -7 459 89& <" :8JS
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-6" 45<9 7-9 45 :55 -7 <" 59J89 &" 4& >&7 * :45
7&==5B 45 - 459 :55: <: 45 75== C<A<" 6& 4 ?5" -7 1
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Q J95 495" &" 49&: @ &" - -J5B&5"A5 &7 5C59 45 -; ;-9S
8"& A<?5

" 45 95A-"A&=&< &-" -7 45 < 4-=&A >5" 9 ! 64&A4
7-==-65B -" 45 B5: 98A &-" -7 45 ;<"&:4 7=55 ! =&I<S
J5 4 7-8"B 459:5=7 &" < ;-:& &-" <"<=->-8: - 4<
5"9 # -7 9<"A5 45 6<: 45 :-C595&>" -7
< "< &-" 6& 4 < B&C&B5B A955B! 45 6- ;<9 &5:! "- S
6& 4: <"B&">! J5&"> < =<: 7-9 45 ?-: ;<9 =- <= $*
459:5=7

- 4 :45 <"B 5"9 45=B < 45 J- -? &" 9&":&A<==
45 :<?5 C&56: 45 J5=&5C5B >5"59<== &" A59 <&"
5=5?5" <9 98 4: = &"> < 45 J<:5 -7 <P 95=&>&-": * <"B
45 B&77595"A5 &" 45 -8 6<9B EH5L;95::&-": -7 4-:5
98 4:! <"B 45 ;<::&-"< 5 <"&?-:& &5: 64&A4 4-:5 B&7759$

5"A5:' 5">5"B595B!' 6595' -"=' "-' A-" 5?; &J=5' -' 45?' /+!'
79-?' 45' ;9<A &A<=' ?&:A=&&57' 64&A4' 45 ' ;9-B8A5B' "'
64<' 59?:' <4-=&A:'<"B' 9-5:<" :' A-8=B' J5'&"B8A5B'
-' =&C5' ->5 459' ;5<A5<J=' 6<:' 45' ;-4 &A<=' ;9-J=5?'-7'
45' <>5' 5& 459' -7' 45' 6-' :-C595&>":' :4<95B' 45' ;9-S
7-8"B' 4-& -9' -7'7<=:54--B!' 64&A4' 6<:'<' 45'45<9' -7' 45'
9-5:<"' ?-C5?5" ' 45' 4<B' 45' :<5:?<"@:' 5?S
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7&A &-":'-7' 45' &?<>&"<&-"' 45' ?54-B:' 64&A4' 45'
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45' 6-'A-8" 9&5:'&:'A89&-8:='&": 98A &C5

5"9' #' B5C5=-;5B' 45' ;-=&A' 64&A4' 45' #<=-&:'
;9&"A5:'4<B' J55"' --' 65<D' -' A<99' -8' 5' A4<">5B'
4&:'-6"' "-?&"<=' A955B!' <"B' 45<9B' ?<::';' -95' <?5!'
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A895B' 4&:' 8>85"-' :8JR5A :' 45' 7955' 5L59A&:5'-7' 45&9'
-6"' 95=&>&-"

"' ">=<"B!'-"' 45' -459' 4<"B!' -=59<&-"' 6<:' 45-S
95 &A<==' 8"D"-6"' ' 6<:' <::8?5B!' <:' <' ?< 59' -7'
A-89:5!' 4<'5C59 'A& &I5"' 6<:'-7' 45' A955B'-7' 45' <5'
4&=5' 45' -8 6<9B' 8"&7-9?& ' A-"A5<=5B' "--9&-8:'
B&77595"A5:!' <"B' ?5"' 64-' 6-8=B' 4<C5' A455978==' A-"S
B5?"5B' 5<A4' -459' -' :<D5' -9' ><==-6:!' 6595' A-?;95S
45"B5B'&"' 45' :<?5'A-??8"&-"

5& 459';=<"'A<"'J5':<&B' -'4<C5'A-?;=5 5='<":6595B'
-=59<&-"' <"B' 8"&7-9?& '<95' -"=' ;-::&J=5' 64595' <'
B&77595"A5' -7' A955B'&:' 95><9B5B' ?595='<:'<?-95' -9'=5::'
""-A5"'B&77595"A5' -7'-;&"&-"' 45"' 9<"A5'95A-C595B'
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45' B&A:' C595' -"A5' ?-95' :65;'<C<_A-?;8=:-9'
94-B-L'A<?5'J<AD!' -'J5'7-==-65B'&"' 89"' J '@<' 95$
-=8&-"' 45' <5?;' -' ?<&" <&"' <' 9&>&B' 489A4'
:5?'&"' ">=<"B' A-:'<'D&">'<"B'<"'<9A4J&:4-;' 45&9'
H&C5:' ! 45' ">=&:4' ?54-B!' 4-65C59!' 6<:' ;9-J<J=!

T' #

8"B59 45A&9A8?: <"A5:-7 45 &?5! 45 6&:5: 4<A-8=B
4<C5 J55"< 7&9:<B-; 5B <B 45 A-7P"&7-9?& J55"5"7-9A5B 6& 4 ?-B59<&-"! 4<B <95<:-"<J=5=<&S
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=&89> <"B 45 9&A=5:?&>4 J5 <B<; 5B -45 >9-6 =&
-7 45 ;5-;=5! 45 ">=&A<" 489A4 ?&>4 !<4&:?-S
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-7 45 <4-=&A: -=->":45 65" -A489A4<:<7-9?!
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45 B5:&95B "<89<== -?<D5 45 J5: -7 45 "56
45 A-8=B "-!&"R8: &A5! J5 5L;5A 5B -:55 45 :<A9<S
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5" 48:&<: <"B 645"45 4<B <J<"B-"5B 45 -;5
-"A5 7-9 <==! 95 <&"&">==-459;-&" :-7 45&9 A955B 8"S
A4<">5B!! 45 4<B <9&>4 -B5?<"B 45 78==J5"57&-7
45 <4-=&A A-?;=5L&-"-7 45 :59C&A5:
& 4 7-9J5<9<"A5 <"B R8B>?5" ! 45 ;9-J=5?"55B
"-4<C5 J55"&":--=8J=5" 8"7-9 8"<5= ! 45 %855"<=S
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-7 45 9-5:<" : 45 6<:7-9A5B &" -<9-5:<"
;--&A &"459 95=<&-":6& 4 45 -"&"5" 45 6<:45
?-95 B5 59?&"5B -?-8=B 45 489A4<4-?5<7 59
459-6";=5<:895 &4-8 45 89&<":!:45 6-8=B=-">
J57-95 4<C5 A4<">5B 459;<=<A5 7-9<;9&:-"!<"B 459
:A5;95 7-9<B&:<77 49-8>4 <==459 9&<=: 45 4<B$
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45?<"B <AD"-6=5B>5B<A-??-"A955B 6& 4 45?
8:45 J5=&5C5B ;9-J<J= 4<J8 7-9 45 ;595?;-9&S
"5::-7 <=C&"&:? 45 A-?;9-?&:5:7-9 64&A4 :45 <B

-&=5B' 6-8=B' 4<C5'=-">':&"A5'>&C5"' W8&5' -' 89-;5' 45 4<B' <AA5; 5B' 45' 45=;' -7' &' &"' A-=<"B' ="B -==<"B!' $$$$$ J8':45' 4<B'<AA5; 5B' &' 6& 4' : 5<B <C59:&-"!' <:'<"' 8"$!;<=< <J=5'"5A5::& ' (899< !' (-9-"!' -69&5!'<"B' ">8:!' 4<B'75=' -"5' <7 59' <"- 459' 45' C<=85' -7' 459'79&5"B:4&;!' <"B' 4<B' 4&=&;' ' A-":5" 5B' -' B&: &">8&:4' J5 655"' 45' :A4&:?< &A' -9 4-B-L' -7' ">=<"B'<"B' 45'4595: ' -7' 45'95: ' -7' 89-;5!' :45' 6-8=B' 4<C5' :55"' 45' 9&"A5' -7' 9<">5' ;59&:4' 8"?-C5B!' -9' 4<C5' :5"' 459' -6"'7=55' -' <::&: '&"' A-59A&">'4&?'&" -' -J5B&5"A5

45' >5"59<=' :8J?&::&-"' -7' 45' A-8" 9' 95=&5C5B' 459!' :-'7<9' <:' 459' -6"' :8JR5A :' 6595' A-"A59"5B!'79-?' 45' -JS =&>< &-"' -7' 48?-89&">'789 459' 45&9' :;&9& 8<=' 8"95<:-"S <J=5"5::' 45' 6&:45B' -' ;9-C5' -' 45' A-"7-9?&">' <4-=&A:' 4<' 45' 489A4' -7' ">=<"B' 6<:'"-' 45' B&:S -9B59=' J-B' 64&A4' 5K:8&' A<=8?"&< -9:'<77&9?5B' K&' -' J5' 45' 6&:45B' -' ?<D5' 45&9' A-"C59:&-"'5<:' -' 45?!' <"B' 95=&5C5' 45&9' A-":A&5"A5:' J' :456&">' B&: &"A=' 4<' &' 45=B' <4-=&A' B-A 9&"5:!'<"B'<:'=& =5': ?;<4&:5B' 6& 4' 4595: ' <:' 45' ;<95" ' : -AD' -7' -?5' 45' 6<:' <::895B' 4<' 45' 89& <":' 6-8=B' J5' =- <=' -' 459' 45&9' A-"S : <"A' 4<B' J55"' 9&5B!' <"B' 4595' 6<:' "-' 75<9' 4<' &==$' 4:<>5' 6-8=B' <=&5"< 5' 45?' 45' &:4-;:!' 45957-95!' C595' &": 98A 5B$' -' 95: -95' -9B59' 45' :;&9& 8<=' A-89 :! H-">&"' <J5 <"A5!' 6595' 95-;5"5B!' <"B' 45' -=B' 9<""&A<=' ;9-A5::5:' 95A-??5"A5B' 64&A4' 4<B' A<==5B' -8' 45' >95<' EA?-": 9<"A5' 64&A4' 45' -8:5' -7' -??-":' 4<B' <BS B95::5B' -' 459' 7< 459' 45' &:4-;:E' <::5::-9:' :8?$' &-"5B' ?&"&: 59:' <"B' =< ?5"!' 5L' -77&A&-!' -' <":659' <" ' HJ<9>5' 4<' ;9&C< 5' <AA8:< &-"' -9' ;8J=&A' 7<?5' 4<B' 8>4' <><&": ' 45?' 45'5AA=5:&<: &A<=R8B>5:' :4565B' H><&"' 45&9' 7<?&=&<9' &"A<;<A& ' -' 8"B59: <"B' 45' ?5<"$' -7' 9&>4' <"B' 69-">!' <"B' 45' <>5B' &"&W8& ' 64&A4

-LA& 9$ 5"& < "B 9-?65=4<B A98:45B 6<: -"A5 ?-95 :5 8;-"& :755

A-8" 9 64&A4 4<B B57&5B <"B A-"W85&@5B 45 -=B 489A4 &" 45 B< : -7 & : ;9&B5K<"B ;-659! 6& 4 45 -;5 < & : J<AD <"B 45 ? : 59 -7 5LA-??8"&A< &-" : &== A<99 &">8"B57&"5B 599-9: 6& 4 & ! 6H<: "- =&D5= -:8J?& W8&5 = -& :5?<:A8=< 5B 95;95:5" < &C5 45=B &" < A4<&" J 45 %855"! B9&==5B J 459 :A5; 95! <"B B<"A&">-<" 8"5 4< :45 ;=5<:5B -B&A < 5

=&I<J5 4@: <9=&<?5" :4<B J55"8"&7-9?= 8"7<C-89S <J=5 - 45 5L59A&:5 J 45 &:4-;:-7 <" D&"B -7 :5S A8=<9 R89&:B&A &-" 64< 5C59 45 95C&C&">W8<995= 4<B J55" 5L<:;59< 5B J =&J5=:! "5& 459 6&:5 "-9 64-== R8: ! J8 < 45 J- -?6& 4 < J<:&:-7 98 4 &" 45? 45 %855" ?<B5 45 &:4-;:@ A<8:5 459 $-6" 45 45=B 45?8;' <><&":45 89&<" -8:5-7 -??-": 45 89&<" =&J5==59:6595 ;9-:5A8 5B J57-95 <" AA=5:&<:S &A<= -??&::&-" <"B 5"9 ! < 5=:4 ?&"&: 59! 45 :8;;-:5B <8 4-9 -7 (<9;95=< 5!@ 6<: ;8 -" 4&: 9&<=7-&@ 75=-" 5 4<B :<&B 64< 6<: "-?-95 4<" 45 98 4 _ 4< 45 %855" J5&">5: <J=&:45B &" 459 49-"5 J 45 -:;5=! 4<B :877595B 45 -:;5= -95<A4 "-789 459 4<" 45 5"B -7 459 :A5; 95 4595 6<:>--B 95<:-" 64 45 5L 95?5 B5C5=-;?5" -7 45 -:;5=:4-8=B &" :-?5 B5S >955 J5 A-" 9-==5B J 45 :A5; 95' J8 & 6<: < 4<9B ?5<:895 -&"B&A 45 69& 59 -7 :8A4 6-9B: 7-9 5LA& &">4< 95B <><&":45 9-6" 5 5"9 @: 9&<= 6<; ;95::5B -< A-"C&A &-"! <"B 45 6<: 4<">5B PB=! <"- 459 ?&"&: 59! 6<: A-"B5?"5B <"B B&5B &" ;9&:-"K - 4 45:5 ?5" 6595 :<A9&7&A5B! <: A-?;=5 5= <: <" C&A &?-7 <><" :8;59: & &-"! -< ?595 &B-= 45 ;=57H -7 A-":A&5"A5 4<B "- <C<&=5B 45 < 4-=&A: 64- 8!&!' 5L5A8 5B 7-9 95<:-" 45 ;=5< -7 A-":A&5"A5 6<: "-? -95 <==-65B -<C<&= 45 89&<":45 45-9

<;&:' <"B' 9-5:<"' 6<:'45=B'<=&D5'&"A-?;<&J=5' C&=& 45' %855"@:'<8 4-9& !'<"B' 45' :<?5' ?5<:895' 6E4&A4' 6<:' 5L 5"B5B' -'-"5' 6<:' 5L 5"B5B' -' 4a' - 459:

' 6<:' ;-=& &A!' :-' 7<9' <:' &' <775A 5B' =&I<J5 4@:' &?S ?5B&< 5'&" 595: :' 45' ;<9'-7' 45' "<&-"' 64-:5'=- <=' 4<B' J55"' ?-:' <?J&>8-8:' 6<:' 8"B-8J 5B=' A-"A&=&< 5B' J' &' 45' &>4' 489A4' ">=&A<"' : : 5?' J5&">$ >9<7 5B' 8;-"' 45' 49-"5!' J5><"' B57&"& 5=' -' >9-$ss9! 4& >&7' <B?&"&: 595B' &:' =<6:!' <"' 5LA5==5"' --D59' <:'7-8"B' -' A-": 98A' &:' 45-=-> !'<"B' 45'95A8:<":' <"B' :A4&:?<&A:_ <:' 45' A-"7-9?&">' ">=&:4' 64-' :&==' J5=&5C5B'&"' 9<":8J: <"&<&-"' 6595' :A-9"78==' A<==5B'<' -?5_ 9<":75995B' 45?:5=C5:'<"B' 45&9' :5"&?5":' -' 45' "56' J-B' -' J5A-?5' 45' 489A4' ;<9' -7' 45' "5L' >5"59<&-"' 64&=5' 45';&==-9 !' 45':=&' 5<9:!' =&5' &:4-;@:' ;9&:-"!' -9!' -"' A-"&"85B' -J:&"<A !' 45' ><==-6:!' J5A<?5' 45';-9&-"' -7' 45'95;95:5"<&C5:' -7' 45' 57-9?5&@:' ' <:'&?;-::&J=5' -'<=&5"<5' 45?'79-?'<' -C595&>"' 64-' J<B'B5=&C595B' 45?'79-?' -R59' 45' J-95' 45&9';59S :5A8&-"' 64&=5' 45'%855"@:'=&75'=<:5B!'<"B'<:' 45' ">=&:4' 595' <' =-">$:87759&">' ;5-;=5!' 7-9' <' >5"59<&-"' <7 59' <"B' 45"' A<?5'<'A A=5'-7'95C-=8&-":!'9&:&">'<==-7' 45?' 79-?' 45' ws 5I5" &<"'8"&-"' -7' <'B5<B'<"B'<'=&C&">' A955B!' &==' &?5' <"B' 5L;59&5"A5' 4<B' =-6595B' 45' 45-=->&A<=' 5?;59<895!' <"B' -=59<&-"' -7' B&::5"!' <"B' <7 596<9B:' -7' -?<"&:?!' J5A<?5'<'=<:';-::&J=5

& 4' -=59<&-"' 45' 95<:-"' A5<:5B' 7-9' 45' A-?;=5L' -":&8&-"' -7' 45' 489A4' 7-9?8=<9&5:' -' =-">' <:' P"&7-9?&' 6<:' &":&:5B' 8;-"!'&' 6<:' J8' R8:&A5' -' &E5<&"' <4-=&A' 5=5?5":'&"' <'=& 89>' >5"59<==' 9-5:S <"' 645"' <4-=&A' A4<;5=:' 6595' 95-;5"5B!' 45' :59C&A5' J=&>4' "<89<==' 4<C5' J55"' 5L;5A 5B' -' <::8?5' <' ?-95' -":&:5"' A4<9<A 59' 5' 45' <"-?<=' 4<:' J55"' ;59$ &7&& 5B' -' :89C&C5!' 6& 4' <' 95:8=' 64&A4' A<"' J5' "5& 459

HI=80

: J 64-== 95>95 5B! "-9 64-== <;;9-C5B 45 R89&:B&AS
&-" -7 45 AD9&A<= A-89 :6<: 7&"<== :8;;95::5B 45
;-659 -7 ">=&A<": <"B 9-5: <" : -;;95:: 5<A4
-459 6<: 95: 9&A 5B 6& 4&" 45 J-8"B: -7 < =<6 64&A4
: ?;<4&:5B 6& 4 "5& 459 L;59&5"A5 J9-8>4 6& 4 & ?
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A-??-" &J=5! 45 6-9:4&;&" <A-??-" :<"A 8<9 ! 45
:4<9&">&" 45 ?<" A595?-"&5: 64&A4 5W8<== &" 595: 5B
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B5>955:! 64&A4 -"A5 A-8=B J55L &">8&:45B -"= &" J=--B
45 -;;-:&"> 45-9&5: ?5= 5B &":5":&J= -"5 &" - 45
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-7 45 "<&-"! <"B "- =-">59 5"B5<C-89&"> -5=5C< 5
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45 4&: -9 &: <A45W8595B -"5! <"B 45 7&"<= B5C5/
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4< 45 : : 5?4<: <A 5B 95<== 65== _ 45 7<A -9: &"
45 ;9-J=5?;59?& &">< J5: J8 <=&?;&">:-=8 &-"$
-&"B8A5 ?5" 64-J5=&5C5B& -J5 45&9 4&>45: B8
-B5: 9- 5<A4 -459! -=&C5 &" ;5<A5 ->5 459! <"B
95:;5A -"5 <"-459@: -;&"&-":! ;<::5B 45 ;-659 -7
?-9 <= 6&:B-? -<AA-?;=&:4 A-?;=5 5= 8 <A-?E
;<9&:-" -7 45 95=&>&-8:4&: -9 -7 ">=<"B B89&">5
=<: 4955 A5" 89&5: 6& 4 4< -7 45 95: -7 89-;5!
?< 5<A4 8: -J5 --59<J= :< &:7&5B 6& 4 -89 -6"
?5 4-B 45 6<9: -7 95=&>&-" &" 9<"A5 A-: < <=5<:
4<=7 < ?&==&-" =&C5:! <"B 45 "8?J59 -7 B5C&=&:4 A9&?5:

64&A4!' &"' 45' A-89:5' -7' 45' : 98>>=5!' 6595' <BB5B' -' 45' :88&' -7' 48?<"' 6&AD5B"5::' :89;<::5:' 5: &?< &-"' 45' 4&9 ' 5<9:@ 6<9' 89"5B' 4<=7' 59?<" '&" -' <' 6&=B59"5::' -7' 98&"' "' ">=<"B!' 645"' &'A<?5' -' 7&>4 &">' <' =<: !' 45' <A9&B' C5"-?' -7' 45-=-> '4<B!' J55"' 5?;595B' B-HC"!' <"B' "5& 459' -8"B45<B' "-9' <C<=&59' B&:4-"-895B' 45&9' A<8:5' <"B' 45&9' A-8" 9 ' J ' 45' < 9-A& &5:' -7' <' &== ' -9' <' 8&:5

-6!' 645"' 45' 4-8>4 :' -7' ?5"' -"' 45:5' :8JR5A :' 4<C5' J5A-?5' :-' B&7= 595"!' 645"' &' &:' "-' =-">59' ;-::&J=5!' 5C5"' &"' &?<>&"< &-"!' -' 95;9-B8A5' 45' : < 5' -7' 755=&">' C4&A4' -AA<:&-"5B' 45' ?<::<A95' -7' ' <9 4-=-?56!' &' &:' 9<:4' -' :8>>5:' &"' B5 <&=' 64<' <;;5<9' -' 8:' -' 4<C5' J55"' 599-9:' <"B' -?&::&-":' 45' 6<"' -7' 6&:B-?' :4-HC"' &"' 45' ;59:`A8 &-"' -7' 45' -"A-"7-9?&: :' 6<:' B5?-"S : 9< 5B' J ' 45' 5C5" ' 89& <"&:?' 6<:' <' =&C&">' 7-9A5' &"' ">=<"B' ' < 4-=&A&:?' 6<:' <' B &">' :8;59: & &-"' 89&S <"&:?' 4<B' :<C5B' =&I<J5 4@:' A9-6"' < 4-=&A&:?' 6<:' <' 4- J5B' -7' B&:=- <= ' 45' D55"5:' ;-=& &A<=' :<><A& !' 4-65C59!' ?<' -7 5"' J5' <' 7<8=' &"' 45' A<=A8=< &-"' -7' 5"B5"A&5:!' <"B' 45' 5?;<&-"' -' A-"A&=&< 5' <';-65978=' J-B !' 64-:5' <==5>&<"A5' 4<B' J55"' :-95=' 9&5B!' ?<' 5<:&=' 4<C5' <;;5<95B' &995:&: &J=5' 4595' &:' -"5';-&" '-"=' -"' 64&A4' &' &:' ;-::&J=5' -' 7&L!' 64595' 45' 79<?59:' -7' 45' -": & 8 &-"' -7' 45' 489A4' 65" ' ?<"&75: =' 69-">' -9' ?&: <D5:' -7' R8B>?5" ' 5C59 ' <==-6<"A5' ?8:' J5' 4&<B5' J8' <' 7<& 4' &"' 98 4' <"B' 4-"5: '&:' 45' 7&9:' A-"S B& &-"' -7' <';-=& &A&<"@:' >95< "5::!' <"B' 65' 4<C5' <' 9&>4 ' -' 5L;5A' 79-?' 4-:5' 64-' <D5' 45' A4<9>5' -7' 45' < 5@:' J& 9 8"5:' 8;-"' 45?!' 4<' 45 ' :4<=' 4<C5' "-' B5<=&">:' & 4' A-":A&-8:' &?;-: 895

45' ;-:& &-"' -7' &:4-;:' &"' 45' 489A4' -7' ">=<"B' H<:' J55"' 79-?' 45' 7&9:' <"-?<=-8:' 45' ;&:A-;< 5' <:' C&-=5" =' :5;<9< 5B' &9-?' 45' <;<A !' -' 64&A4' &

5A P$ 3+ 6-8=B 4<C5 ;9575995B -95?<&"< <A45B! <"B -:5A895 &:-J5B&5"A5! &6<:?<B5B5;5"B5" -" 45 9-6" 45 ?5 4-B -7 5;&:A-;<= <;;-&" ?5" :! &": &8 5B J 5"9 # ! <: < 5?;-9<9 5L;5B&5" <"B <J-=&:45B 8"B59 B6<9B<: <"8"95<=& ! 6<:95$5: <J=&:45B J =&I<J5 4! "-A59 <&"=J5A<8:5 :45 J5=&5C5B 4< 45&"C-A< &-" -7 45 -= 4-:6<:95W8&95B 7-9 45 A-?;=5 5"5::-7 <" 5=5A &-"64&A4 459 -6"A4-&A5 4<B <=95<B B5 59?&"5B! "-J5A<8:5 45 &:4-;: -J <&"5B <" >&7 :-9>9<A5 &" 45&9 A-":5A9< &-"64&A4 :45 459:5=7 95:;5A 5B! J8 J5S A<8:5 45 :4<B-6 7-9?-7 <"5=5A &-"! 6& 4 <95=&>&-8: A595?-" 7-==-HC&">& ! ><C5 45?45 :5?J=<"A5 -7 :;&9& 8<= &"B5;5"B5"A5! 45 :5?J=<"A5 6& 4-8 45 :8JS :<"A5! 64&A4 W8<=&7&5B 45?-J5 45 &": 98?5" :-7 45 : :5?64&A4 :45 B5:&95B -5"7-9A5 45 6595 5?;5B -;95:8?5-" 45&9 ;4<" -?B&>"& ! &== 45 :6-9B -7<:5A-"B 9-?65== <8>4 45?45 985C<=85 -7 45&9 ;-: -=&A B5:A5" <"B 65 4<C5 < 9&>4 -95>95 4< 45 -9&>&"<= 45-9 -7 7<"?59 6<:B5;<9 5B 79-?_H4<J5&">-77&A59:-7 45 9-6"! <:?8A4 <;S ;-&" 5B J 45 -C595&>"<: 45 -9B 4<"A5==-9! 45 &:4-;: :4-8=B "- 4<C5 6-9"-;5"= 45&9 95<= A4<S 9<A 59 <"B 95A5&C5B 45&9 <;;-&" ?5" :&?? 5B&< 5= J =5 59:;< 5" 6& 4-8 789 459 A595?-"

-<"; &:A-;<A :-A-": &8 5B 45 ?-: 5L 95?5 95:J 59&<"6-8=B "- =-">4<C5 -JR5A 5B 45 95:S J 59&<"B&B "- 95:5" <8 4-9& <: :8A4! J8 <8 4-9& 64&A4 <::8?5B < B&C&"5 -9&>&"64 5"95: &">&"95<=& -"" - 4&">J8 < A-">` B@`=&95 :<"5=B59 <?-">5=B59:! <: < ?&"&: 59 ;9-?- 5B -B5:59C5B :8;59&-9& 7-9 ;89;-:5: -7 -9B59 <"B >-C59"?5" ! 45 &:4-; -7 45 489A4 -7 ">=<"B 6-8=B 4<C5 A-??<"B5B V >5"8&"5 95C595"A5! <"B 45 A-==5A &C5 5"A4 ?&>4 4<C5 98=5B &"<:&"A59& -C59 < 8"& 5B 489A4! &"64&A4

45' &9D' -7' A- =<"B' 6-8=B' <' 7&9:' 4<C5' J55"' >=<B=' @ K
<J:-9J5B

-' "<&-"<=' -JR5A' 6<:' :5A895B' J' 45' 9<":;<95"' 7&A &-"' -7' 45' 5=5A &-"' <"B' A-":5A9< &-"' 45' &"C-A< &-"' -7' 45' -=' ;&9&' 5& 459' ?5<"' "-4&">!' <"B' 6<:' <' <D&">' -7' :<A95B' "<9&&5:' &"' C<&"!' -9' &' &?;=&5B' 4<' 45' 4&9B' ;59:-"' -7' 45' 9&"&' 6<:!' <:' <' ?< 59' -7' A-&8@:5!' -' 95>&: 59' 45' <=95<B' B5A=<95B' B5A&:&-"' -7' 45' ">=&:4' -C595&>"' -' <BB& &-"<=' 95:;5A' 6<:' :5A895B' -' 45' 95=<A' 79-?' 45' <4-=&A:' @ &<J=-:' W85' :5' <&"<"' @ J&:;-:!@_ @ 45' B5C&=:!' 64-' <95' A<P5B' &:4-;:!@ 6<:' 45' ;-=& 5' 5L;95::&-"' 64&A4' (5"B-I< 8:5B' -7' 45?' =&I<J5 4' 645"' 45' ;9-C-D5B' 459' 495< 5"5B' -' B5S ;-:5' 45?!' <"B' 645"' 45' -6<9B:' <"B' 45' <=J-:' <"B' 45' <"=5 :!' 6& 4' 45&9' < 5"B<"' :< 5==& 5:' -7' D"&>4 :' 8"B' :W8&95:!' :8995"B595B' 45&9' 4-;5:' -7' 95C-=8 &-"!' 45&9' 5A-"A&=&< &-"' 6& 4' 45' 489A4' -7' ">=<"B' 6<:' "-' P&<B5' ?-95' 5<:' -' 45?' J' 45' ;-::&J=5' 95>8=<9& ' -7' 7' W85: &-"5B' A595?-"' <' <?J5 4' 45' ;-&"' 64595' 9-5: <" :' <"B' <4-=&A:' <;;9-<A45B' 5<A4' -459' 6<:' 4&' 45' 8459<"' 45-9' -7' A-":8J: <" &< &-"' 45' 7&9:' 9<RH59$J--D' -7' B6<9B' # !' 6& 4' =&>4 5B' A<"B=5:' -"' HJ5' <= <9!' 6-8=B' 4<C5' J55"' <' 4-8:<"B' &?5:' ?-95' >955<J=5' -' A-"7-9?&">' 95A8:<" :' 4<"' 45' A=5<95:' C&B5"A5' 7-9' 45' &:4-;:' -7' <"' 8"J=5?&:45B' ;-: -=&A' =&5B&>955!' 64&=5' &"' & :' 5775A :' & ' 6-8=B' 4<C5' J55"' &"7&$' 4& 5=' ?-95' 4<9?=5::

8' "5& 459' =&I<J5 4' "-9' =< 59' ;-=& &A&<":' -7' =&I<$' 4@:' 5?;59<?5"' B5:&95B' 45' 489A4' -7' ">=<"B' -' J5A-?5' --' >5"8&"5' ' 4<:' J55"' ?-95' A-"C5"&5"' -' =5<C5' <"' 5=5?5"' -7' 8":-8"B"5::' <' 45' 45n9' -7' <"' &"S :&8&-"' 64&A4!' &7':&"A595!' ?&>4' J5' B<">59-8:=' ;-659$' r*' 45' 6&:5:' <"B' J5:' -7' &:' &:4-;:' 4<C5' 7-8"B' 45&9' &"7=85"A5' &?;<&95B!' 45&9' ;-:&&-"' ?<B5' 5W8&C-A<=!

- A9C$ J 45 5=5?5" -7 8"95<=& 64&A4 <B4595: - 45? 755=&">< ; ;9-<A4&"> - A-" 5? ; 4<: J=5"B5B 6& 4 45 95C595"A5 < <A4&"> - 45&9 ; - :& &-"! <"B 4<: ;95C5" 5B 45?' 79-?' A<99 &"> 45 65&>4 &"' 45 A-8"A&=: -7 45 "< &-"' 64&A4 4<: J55"' A-? ?<"B5B J ?5"' -7 "-'>95< 59 &" 9&": &A 5?&"5"A5 &"' - 459 ;9-75::&-": 95 5":&-": 64&A4 ?<" -7 45?' 6-8=B 4<C5 >=<B= <J<"B-"5B 4<C5 A-""5A 5B 45&9 -77&A5 6& 4 <:?&=5 45 "< 895 -7 &' 4<: 7-9 45 ?-: ; <9 7&==5B 45 :55: 6& 4 ?5"' -7 :5A-"B$ 9< 5 <J&=& &5: 45 =< 5: <"B ?-: :&">8=<9 45-9 <J-8 45?' &: 4< -7 45 ?-B59"' ">=&:4 5-$ < 4-=&A! 64- B&:95><9B: 4&: &:4-;@: <BC&A5! <"B B5:;&:5: 4&: A5":895:' J8 =--D: -"' 4&?' "5C59 45=5::' <: :-?5 4&>4S J95B 6-9"$-8 <"&?<=! 8:5=5::' &"' 4&?:5=7! J8 &"7&"& 5= C<=8<J=5 7-9 :-?5 ? : 59&-8: ;89;-:5 -7 :;&9& 8<= ;9-S ;<>< &-"

Q --'=< 5 &: 69& 5"' <><&": <A4<">5 < 45 ;95:5" B< 45 ;-: -=&A<= :8AA5::&-"' 4<: J5A-?5 45 7&9: <9 &A=5 -7 45 A955B -7 4<=7 45 A=59> ! <"B 95=&>&-8: 7-9?: <95 -"=HH ?<==5<J=5 &"' 45 759C5" 45< -7 >5"8&"5 J5=&57 8 -' ;=< 6& 4 :<A95B 4&">: &: "5C59 C5P 895B 6& 4 &?;8"& 45 95 5" &-"' -7 45 A-":5A9< &-"' <=-"5 95"B595B ;-::&J=5 45 < & 8B5 -7 45 95=<A 64&A4 A-: <8B <"B 4<9=5: 45&9 45<B: 45 95S C&C<= -7 45 ?<>&A<= 45-9 -7 45 ;9&5: 4--B! 64&A4 B5S ;5"B: 8;-"' &! &: 45 A4&57 A<8:5 -7 45 4-: &=& J5 655"' 45 5<A4&">-7 45 489A4 <"B ?-B59"' :A&5"A5 4< A8 -77 45 A=59> 79-?' <== 45<= 4 &"7=85"A5 -C59 &"S 5==5A <"B ;9<A &A5 4<: B6<975B 95=&>&-"' &" -' -;&"&-"' -9 A4&=B&:4 :8;59: & &-"! <"B "-6< =<: &: J5S 9< &">=&75 <"B 45 6-9=B -' <>-B=5::5A8=<9& -' 95 89"' -' =&I<J5 4

"' 7&>4 &">-8 459 =-"> W8<995= 6& 4 ;<&"' <"H J8&=B&">459 489A4: : 5?-8 -7 45 J9-D5"' ?<:-"9

-7' -;59 !' 459' A-"A=8B&">' 5<9:' ;<::5B' <6< ' 45' #$
>95<' ?5"' 64-' 4<B' 8;45=B' 45' 49-"5' &"' 45' B< :' -7'
459' ;59&=' B9-;;5B' -"5' J ' -"5' &" -' 45' >&K<C5' <=$'
:&">4<?' B&5B' :--"' <7 59' 45' B575<' -7' 45' 9?<B<!'
98&"5B' &"' 7-9 8"5!' <"B' 65<9 ' -7' 4&:' 8">9< 578=' :59C&A5'
8":B-"!$' "-== :!' 89>4=5 !' 9<D5!' 7-==-65B' <' J&E&57'
&" 59C<=:!' <"B' 45&9' ?&: 95::' 6<:' =57' J ' 459:5=7!' : <"BS
&">' <:' &' :55?5B' -"' 45' ;&""<A=5' -7' 5<9 4=' >=-9 !'
5' &"' <==' 45' =-"5=&"5::' -7' >95< "5::!' <"B' 8"<J=5'
-' 5"R-' 45' 4-"-89:' 64&A4' 89>4=5 @:' ;-=&A' 4<B'
6-"' 7-9' 459' 45' 7&9:' ;=<A5' <?-">' 45' 9-5: <"'
-659:!' 64&A4' 4<B' J55"' :-' -7 5"' -77595B' 459' <"B' :-'
-7 5"' 9578:5B!' 4<:' J55"' 7-9A5B' 8;-"' 459' &"' ::& 5' -7'
459:5=7' (45' 6<:' 5<B' -7' 45' <?5!(J8' &' ><C5'
459' "-' ;=5<:895' 45' 6<:' 45' =<:' -7' 459' 9<A5' -'
8B-9' 6-8=B' :&' <><&"' -"' 45' ">=&:4' 49-"5' 59'
-6"' :<B' ;9-;45A' 6<:' 78=7&==5B!' <"B' :45' =&C5B' -' :55'
4-:5' 64-?' :45' ?-:' 98: 5B' 89"&">' 45&9' 5 5:' -' 45'
9&:&">' :8"' =B' <>5' 6<:' A-?&">' 8;-"' 459!' J9&">&">'
6& 4' &' ;594<;:' <' A-":A&-8:"5::' -7' 7<&=&">' 7<A8= &5:' <"B'
:-=& <9' &"' 45' ?&B:' -7':;=5"B-89!' <"B' 79&5"B=5:' <?-">'
45' A&9A=5' -7' <B-959:' 64-' :6-95' 45' =&C5B' J8' &"' 459'
;95:5"A5!' :45' >956' 65<9' -7' <' =&75' 64&A4' 4<B' A5<:5B' -'
&" 595:' 459' &AD5"&">' -7' <' C<>85' B&:5<:5!' :45' :-8>4'
4-' 45=;' 79-?' ?5B&A&"5!' <"B' 7&"<==' 9578:5B' -' <D5' 7--B'
45' A-8=B' "-' 95:' &"' 459' J5B!' J8' :<5' :&=5" ' -"'
8:4&-":!' :<9&">' &" -' C<A<"A' 6& 4' 7&L5B' <"B' :-"'
5 5:!' <"B' :-' <' =<:' :45' B&5B

59' A4<9<A 59' ' 4<C5' =57' -' J5' >< 4595B' 79-?' 459'
A&-":!' 79-?' 459' =5 59:!' 79-?' 45' A-? ?8"&A< &-":' J5S
655"' 459:5=7' <"B' 459' ?&"&: 59:!' <"B' 79-?' 45' -;&"&-":'
5L;95::5B' 7955=' -' -"5' <"- 459' &"' ;9&C< 5' J' 4-:5'
4&&"&: 59:' 45?:5=C5:' 45' ?<"' ;59:-":' 6& 4' 64-?'
H45 6<:' J9-8>4' &" -' A-"7&B5" &<=' 95=< &-":' B89&">' 459

/+&!S =-">95&>"! "- 5B B-6" 64< :45 :<&B - 45?! <"B 459
6-9B: 4<C5 J55" J9-8>4 8; &" R8B>?5" <><&": 459"
<"B 4595 4<C5 J55" 5L 95?5= 756 ?5" <"B C-?5" &"
4&: 6-9=B 64-:5 =&C5: 6-8=B J5<9 :- A=-:5 < :A98 &" !
-9 64-A-8=B =--D7-96<9B - J5&">:8JR5A 5B - & 6& 4S
-8 :4<?5 <"B B&:?< 45 ?5<" 4-8>4 : 64&A4
A9-:: 45 ?&"B:<"B < -"5 &?5 -9 - 459 5:A<;5 79-?
45 =&;: -7 ?-: -7 8:! 6595 -J:59C5B <"B 95?5?J595B
645" ;9-A55B&"> 79-? 45 ?-8 4 -7 < -C595&>"! <"B
9&:5 =&D5 <AA8:&"> :;&9& : &" <8 45" &A 79&>4 78="5::
-8 -7 45 ;9&CY 5 B9<659: -7 : < 5:?5"@: A<J&"5 :
 -?? -" ;59:-": <95 :45= 595B J -J:A89& 45 =<9>5:
;-9 &-" -7 45&9 7<8= : 45 7-9>5 45?:5=C5:! <"B
- 459: B- "- A<95 - 95A-==5A 6=&&=5 &">: <"B %855":
<95 < -"A5 9578:5B 45 -9B&"<9 <==-6<"A5: 7-9 48?<"
C5<D45::! <"B ;< Q7-9 45&9 >95< ;=<A5 &" =&75 J <
9&<= J57-95 ;-: 59& ?-95 :5C595 & &: - J5 4-;5B 4<"
< C<& :8: <== < 45 7&"<= 8B>?5" $J<9
4&:! --! -8>4 - J5 J-9"5&" ?&"B 4< -C595&>":!
645" A&9A8?: <"A5: EJ5A-?5 5?J<99<::&">! ?< "- !
=&D5 8"C<=85B ;59:-":! : <"B <:&B5 <"B =5<C5 - 459: -
B5<= C& 4 45? 8JR5A :<9 <==-65B - B5A=&"5 95:;-"S
:&J&=& ! - 9578:5 - 8"B59 <D5 6-9D C4&A4 45 B&:=&D5!
-9 - =< B- C" < <" &?5 < J89B5" C4&A4 45 7&"B
--45<C 7-9 45? 9&"A5: J-9" - >- E59" 7&"B 45&9
B8 &5: A=&"> - 45?<: 45&9 :4<B-6: JB&A< &-" &:
-7 5" ;9<A &A<== &?;-::&J=5 C59 B< 45 ?8: B-
:-?5 <A -9 7-9?:-?5 B5A&:&-" 79-? C4&A4 A-":5W85"A5:
7-==-6 -7 &"7&"& 5 ?-?5" 45 C-8=B >=<B= B-
"- 4&"> &7 45 ?&>4 ! J8 & &: "- ;59?& 5B - 45?$
45 <95 B5"&5B 45 <= 59"< &C5 -7 &"<A &-"! C4&A4
:- -7 5" 45 J5: :<75>8<9B <><&": B-&"> C9-">
=&I<J5 4@: :& 8< &-" C<: 79-? 45 C59 7&9: 5L 9598H
9C&"> 45 4<B 75 # 95=< &-":! "-"5 -7 <" C5&>4 1

45' < 5!'<"B' 4-:5'64-?'=&D5' &?:B-"'<"B' &9' 9<"A&:' - A8$
C"-== :':45' --D'&" -'459' <J&"5 !'B59&C5B' 45&9' >95< $' :9-
"5::' 79-?' 459:5=7' 59' 8"=8AD !'&' ?<' J5' <=?-:'
A<==5B'A8=;<J=5!'< <A4?5" ' -' 5&A5: 59'?<B5'?<99&<>5'
8"A-"W85L@<J=' B&: <: 578=' -' 459!'<"B' 459' B&:<;;-&" S
?5" '><C5'<"'<BB&&-"<=' 6&:' -' 459'"< 89<=' 5AA5" &@&A&$'
&5:' &9A8?:<"A5:'?-95' 4<"'A4-&A5' 4956'459'-9&>&S
"<== '-"' 45':&B5'-7' 45' 57-9?<&-"!'<"B'645"':45' -=B'
45' ;<"&:4' ?J<::<B-9:' 4<' :45' 4<B' J55"'7-9A5B'&" -'
45' :5;<9<&-"' 79-?' 45' <;<A' <><&":' 459' 6&==!' :45'
;9-J<J=' ::-D5' J8' 45' 98 4' 45' 6<:' &B5" &7&5B'&"'
459' J&9 4' 6& 4' 45' A<8:5' -7' &"B5;5"B5"A5' 45' 7&9:'
J< =5' 4<B' J55"'7-8>4' -C59' 459' A9<B=5!' ?B' 459' 9&>4' -'
J5' -"' 45' 49-"5' 89"5B' ?-9<== !'&7'"-' &"'=<6!'-"' 45'
=5>& &?<A' -7' %855"' < 459&"5@:' B&C-9A5' 59' :&: 59'
4<B' ;59:5A8 5B' 459' <:' 45' A4&=B' -7'$ 45'!6-?<"'64-'4<B'
A<8:5B' 459' ?- 459' :-' ?8A4' ?&:59 !'<"B' 459K'79&5"B:!'
45957-95!'4<B'"< 89<==' J55"' 4-:5' 64-' 6595' ?-:' 459'
:&: 59@:' 5"5?&5:' 45' A-8=B' "-' 4<C5':8J?& 5B' -' 45'
-;5' 6& 4-8' A-"B5?"&">' 459' 7< 459!' -9' <B?& &">' <'
<&"' 8;-"' 459' -6"' J&9 4!' 64&=5' &"' (<9' -7' A- =<"B'
:45' 4<B' <' 9&C<=' 95<B' -' <D5' <BC<" <>5' -7' <"' A-"A5:S
:&-"' 64&A4' :45' ?&>4' J5' 5?; 5B' -' ?<D5
-9' 45:5' 95<:-":!'<"B' "-' 79-?' <"' : ?;< 4' 6& 4'
45'C&56:' 5& 459' -7' 8 459' -9' <=C&"!':45'A4-:5'459';<9'
<' 459' <AA5::&-"' 45' 7-8"B' 459:5=7' A-?;5==5B' <><&":'
459' 6&==' -' J5A-?5' 45' ;<9-"' -7' 4595 &A:' <"B' 95J5=:!'
"' 64-:5' -JR5A:' :45' 4<B' "-' &" 595: !'<"B'&"' 64-:5' 45S
-=-> ' :45' 4<BE"-' J5=&57' 45' 95:5" 5B' 45' "5A5::& '
C4&=5':45' :8J?& 5B' -' &!'<"B' 459' C<A&==< &-":' <95' 5LS
;=<&"5B' J' 45' 95=8A<"A5' C& 4' 64&A4' 5<A4' :8AA5::&C5'
H5;' C<:' 7-9A5B'8;-"' 459!'-"'<' 9-<B' 64&A4' :45' B5 5: 5B!'
&' C-8=B' 4<C5' J55"' 5<: ' 7-9' <' 9- 5: <"' ' -' J5' B5A&B5B!'
&' 6-8=B' 4<C5' J55"' 5<: ' 7-9' <' < 4-=&A' -' J5' B5A&B5B

/ +&! S / - =&I<J5 4 45 : ; 5A8=< &- " :@ - 7 : - $A<==5B B&C&"5: 6595 J8 <: 9- ; 5: - 7 : <"B < "B :5<$:=&?5 =5<B&"> - 45 ? - - "! <"B 45 B - A 9&"5: 7 - 9 64&A4 45 6595 95"B&">5<A4 - 459 - ; &5A5: < B95<? - 7 7 - - =: - 9 5" 48:&<: : P "7 - 9 8"< 5= 459 D55""5: : - 7 &": &>4 6<: "- A - ? J&"5B 6& 4 <" ; 9 - 7 - 8"B A - "A59" 7 - 9 : 59&-8: 4&">: : 45 :<6 49 - 8>4 45 5 ? ; &"5: : - 7 45 7 - 9 ? : $ &" 64&A4 95=&>&-" ; 95:5" 5B & :5=7 - 45 6 - 9=B 45 4<B "-"5 45 ? - 95 <" =<9>59 - 9 B55 ; 59 A - "C&A &-"@ - 7 459 - 6" 45 6<: 6& 4 - 8 45 &" 5==5A 8<= 5 ? - &-" : 64&A4 >&C5 48 ? <" A4<9<A 59 & : A - ": &: 5"A <"B ; - 659 "5 ? - 9<= W8<=& : 45 ; - : : 5 : : 5B &" <" 5 ? &"5" B5>955 : 45 6<: : 8 ; 95 ? 5= J9<C5 - 9 0 4&9 5<9: : 45 6<: ; 59 ; 5 8<== < ? <9D 7 - 9 <: : <: : &"<S &-"! <"B 459 : ; &9& : 6595 "5C59 <775A 5B! <"B :45 6<: "5C59 79&>4 5"5B &" - A985= 45 4<B < ; 9 - ; 59 A - "S 5 ? ; <=: - 7 - 9 &B=5 =8L89 <"B &"B8=>5"A5 45 =&C5B :&? ; = ! 6 - 9D5B 4<9B! <"B 98=5B 459 4 - 8 : 54 - =B 6& 4 9&>&B 5A - "- ? 8 459 C<"& 6<: <: &": < &<J=5 <: & 6<: A - ? ? - "; =<A5 - 7=< 59 6<: - - <6B9 - R "B < 65=A - ? 5 6& 4 459! <"B <: :45 4<B "- 95 ; 8>"<"A5 - 7<=: 5 6 - 9B: &" - 459 ! :45 6<: 5W8<== =&J59<= - 7 45 ? 459 : 5=7 59 5" &95 "< 895 6<: : < 89< 5B 6& 4 <9 &7&A5 LA5 ; 645" : ; 5<D&"> : - ? 5 9 - 8"B 8" 98 4 =&I<J5 4 "5C59 A - 8=B J5 :&? ; =5 59 =5 59: <"B 459 : ; 55A45: 6595 <: 7<" <: &A <: 459 B95 : ! <"B 459 ? 5<"&"> <: &"S C - =C5B <: 459 ; - =&A 45 6<: 8""< 89<= 5C5" &" 459 ; 9< 59 : !H <"B :45 A<99&5B 459 <775A < &-": &" - 45 ; 95$

H 595 7 - 9 &": <"A5 &: < ; 9< 59 A - ? ; - : 5B J J59 &" 45 5<9 *MN, @ 4! - B! = ? <D59! D55 ; 59! <"B >8&B59! &"895 ? 5" - 7 4 9<95 :55" <"B :55=B 45<9B - 7 >- - B"5: : - 895B &" : - ; =5" &78= <: - 9 8 ; - " 8 : 78== - 7 ! J955B: "- 6 4&: J - =B"5: : - A9<C5 6& 4 J - 65B D"55: <"B 45<9 : - 7 48 ? &=& 4 =<9>5 4<"B - 7 45=; &"> ; - 659! - <: : &: 6& 4 6 - "B59 - 89 R8: A<8:5! "- 7 - 8"B5B - " ; 9&B5@: ? - &- " - 9 J5>8" - " ? <=&A5 : - AD! J8 ! <: 4 - 8 J5: D" - 65: ! - 64 - ? "- 8>4 &: 4&B! >9 - 8"B5B - " R8: B575"A5 79 - ? 69 - ">: 4< 5 <"B J=- - B B5:&95 - 7 A - "W85: ! 7 - 9 :&"A5 ?5<":

:5"A5' -7' 45' =?&>4 ' 45' ?&>4 ' B-8J ' =5>& &?< 5= ' / + ! S
' R/
645 459' :45' -8>4 ' -' <::&: ' <"' <9=' -7' (899< iH -9' <
9&"A5' -7' 9<">5' 6475"' &"' <9?:' <><&": ' 45&9' -C595&>" "
J8 ' 459' :A98;=5:' 5L 5"B5B' -"= ' -' 45' 78=7&=?5" ' -7' 459'
;9-?&:5:' -7':8;;-9 !' 645"' :45' 4<B' 459:5=7' 5?; 5B' 45?'
&" -' &":8995A &-" ' J=&>< &-":' -7'4-"-89' 6595' "- ' -"= '
-AA<:&-"<== ' 7-9>- 5"' J ' 459!' J8 ' :45' B&B' "- ' :55?' -'
8"B59: <"B' 64<' 4-"-89' ?5<"

#<&"' <:' :45' 6<:' -7'459' -6"' :<><A& !' :45' "5C59' ?-B&S
7&5B' <' A-89:5' 95A-??5"B5B' -' 459' J ' 89>4=5 ' /6& 4-8 '
&"R89 ' J-4' -' 45' 95<=?' <"B' -' 459:5=7' 45' "5C59' A4-:5'
<"' -;;-:& 5'A-?E:5'6& 4-8 ' ;=8">&">'&" -'5?J<99<::?5" :!'
79-?' 64&A4' 4&:' :D&==' <"B' <=:&">4<?@:' 6595' J<95= @
<J=5' -' 5L 9&A< 5' 459 ' 45' >95<' 95:8= :' -7' 459' 95&>"'
595' 45' 798& :' -7' <' ;-=&A ' 64&A4' C<:' "-' 459' -6"!' <"B'
64&A4' :45' : <9C5B' <"B' ?8 &=< 5B' 645"' 5"59> ' <"B' A-?S
;=5 5"5::' 6595' "55B5B

4<' :45' ;8:45B' "-' W85: &-"' -' 5L 95?& &5:!' 4<!' 7-9'
&": <"A5!' :45' 9578:5B' -' <==-6' 45' :8AA5::&-"' -' 45'
9-6"' -' J5' B5 59?&"5B!' <"B' ;59?& 5B' 45' <4-=&A:'
-' 5L;5A ' 45' <AA5::&-"' -7' 45' %855"' -7' A-:!' 4<:' J55"'
&" 59;95 5B' J ' 45' 95:8=' &" -' 6&:B-?' 45' ><&"5B' &?5'
J ' & !' <"B' 459' 4<9B5:' ;9-J=5?:' 6595' 4-:5' 64&A4' &?5

=&-8' 4<:' &?;<9 5B' -' :</;5 4<' 7-9' 455' -"=' -' ;597-9?' -' :4<=='
4-8' 4<:' >&C5"' J ' 5"R- &">K' :8A4' 4 ' "<?5' J5' :;95<B' 7-9' 6-"B59:'
;5-;=5' <:' :A-9":' $ 45&9' J=--B:45B!' 69-8>4 !' <"B' 457<& =&78=' 5"A-89<>5B'
H4595' :895=' -89:' &:' -"5' -9 &7 !' -' 95;-:5' &"' 4 ' 8"75==-65B' >9<A5'M
E=5<9' -B!' :&R;4' 45<9 :' &"' :8A4' :-9 ' <"B' 65' 4<' ?&"B5BE"-8>4 ' J8 '
H' 45&9' J5:' ;<9 ' ?<' J5' /6-9:!' 9&>4 ' 5"A4<&"5B' &"' 4 ' J-"B:' 7-9'
4<' -' 45' 985:' ;<&E' ?5<"' ;59;5 8<=' :=<C59 !' <"B' =&C5' <"B' B&5'
EC-9:5' 6& 4' =5<:' =-::' -' :8A4' < 45' :<A9&7&A59:' -7' -89' :-8=:' 7-9' :8A4'
4<&-"' <:' B5:;&:5' 45&9' =&C5:' 7-9' -J <&"5B' 7<C-89:' <99<" !' B5<9'
45&9'A-8" 9 @:>--B'Ž 4<' <==' 7-95&>"' -9B!' <==' 4&:' 6& 4' 4 ' A-??<"B@
J8B:' ?< ' =<8B' <"B' <B?&95' 45' -?$ ' + % ' C-=' &C ' ;' 11+
KEK;-5"A ' -7' 4 ' 6-94:!' <' 7<A ' <=-"5

K' 4!3' &"' 9 ;5' %8' i' @5?;=- &"> @

ee-L& P$ <=-"5A-8=B95:--=C5:<&:7<A -9&= 8 45 7-9 8"5 64&A4
: --B 459 79&5"B :- -7 5" "5C59 :59C5B 459 J5 59 4<" &"
=5"> 45"&"> 459 =&75 &" - --=B <>5 <B 45 %855" -7
A- : :89C&C5B 459! 459 =5><A - " >=<"B 6-8=B 4<C5
J55" < B5:;59< 5 <"B B95<B78=A&C&= 6<9! <"B 459 95=8AS
<"A5 6<: "- 95:8= -7 <" 7<9:&>4 5B -9 >5"59-8:
!A<=A8=<&-" 45 $6&:45B -"= - 95&>" &" W8&5 &== 459
B5< 4! <"B 6<:A-" 5" 5B - =5<C5 45 "5L >5"59< &-"
- :5 =5 &:$-6" B&77&A8=&5: 59 5"B59"5:: -6<9B:
A-":;&9< -9: 6<: <: 95?<9D<J=5 <:&6<:4& 459 - 8"5LS
<?;=5B J8 459 8"$6&==&">"5:: - :45B J=--B 5L 5"B5B
-"= - 4&>4$J-9" 9<& -9: P"=&D5 459 7< 459! 64- 5C59
: 98AD 45 =5<B59:<"B :;<95B 45 7-==-659:! =&I<J5 4
A-8=B 9<95= J9&">459:5=7 - :&>" 45 B5< 4$6<99<" -7
<"-J=5?<" 5 6& 4-8 A-?;8"A &-" :45 A-8=B -9B59
-9D:4&95 ;5<:<" : - J5 48">&" :A-95: J ?<9 &<= =< B$
(59A 6<: 45 W8<=& 6& 4 64&A4 :45 6<: ?-: 5<>59
- J5 A95B& 5B 45 B5=&>4 5B &" ;-;8=<9& 6& 4 45
?8=&8B5! <"B : 8B&5B 45 A-"B&&-": -7& ' J8 :45
8 595B "- 6-9B -7 J=<?5! :45 9< 459 4<"D5B 45 ;59
;5 9< -9: 7-9 >--B :59C&A5 B-"5 - 45 A-??-865<= 4
645" : :5L :5" &" 4&: 95;-9 -7 45 6-?5; <"B A4&=B95&H
64- 6595 : <JJ5B &" 45 A<C5: -7 < 4=&" 45 6<:
95?-9:5=5: :645" :45 -8>4 - 4<C5 J55" ?-: 7-9J5<&/
&">! <"B =5"&5" 645" :45 -8>4 - 4<C5 J55" : 59" <"B
:45 -65B 459 :<75 <"B 459 :8AA5: - 45 &"A<;<A&
<"B 45 B&C&:&-": -7 459 5"5?&5:! 9< 459 4<" - 6&:B-&"
<"B 95:-=8&-" -7 459 -6" &?5 6<: 459 79&5"B! &?xH
<"B 45 65<D"5:: -7 4&=&;" <"B 45 7<&95: 75< 895 &&H
459 4&: -9 ! 45 -"5 95=< &-" &" 64&A4 79-?E 7&9: - =<:
:45 :4565B :8: <&"5B <"B >5"59-8: 755=&">! &: 4< 64&A4
45 ;59C59:& -7 4&: -9 4<: :5=5A 5B <: 45 J=- -" 457
5:A8 A45-" 5 -"B <"B J5:&B5 45 ;-=& &A<= A<8:5:
64&A4 &"7=85"A5B =&I<J5 4@: < & 8B5 -6<9B: 45 %855"

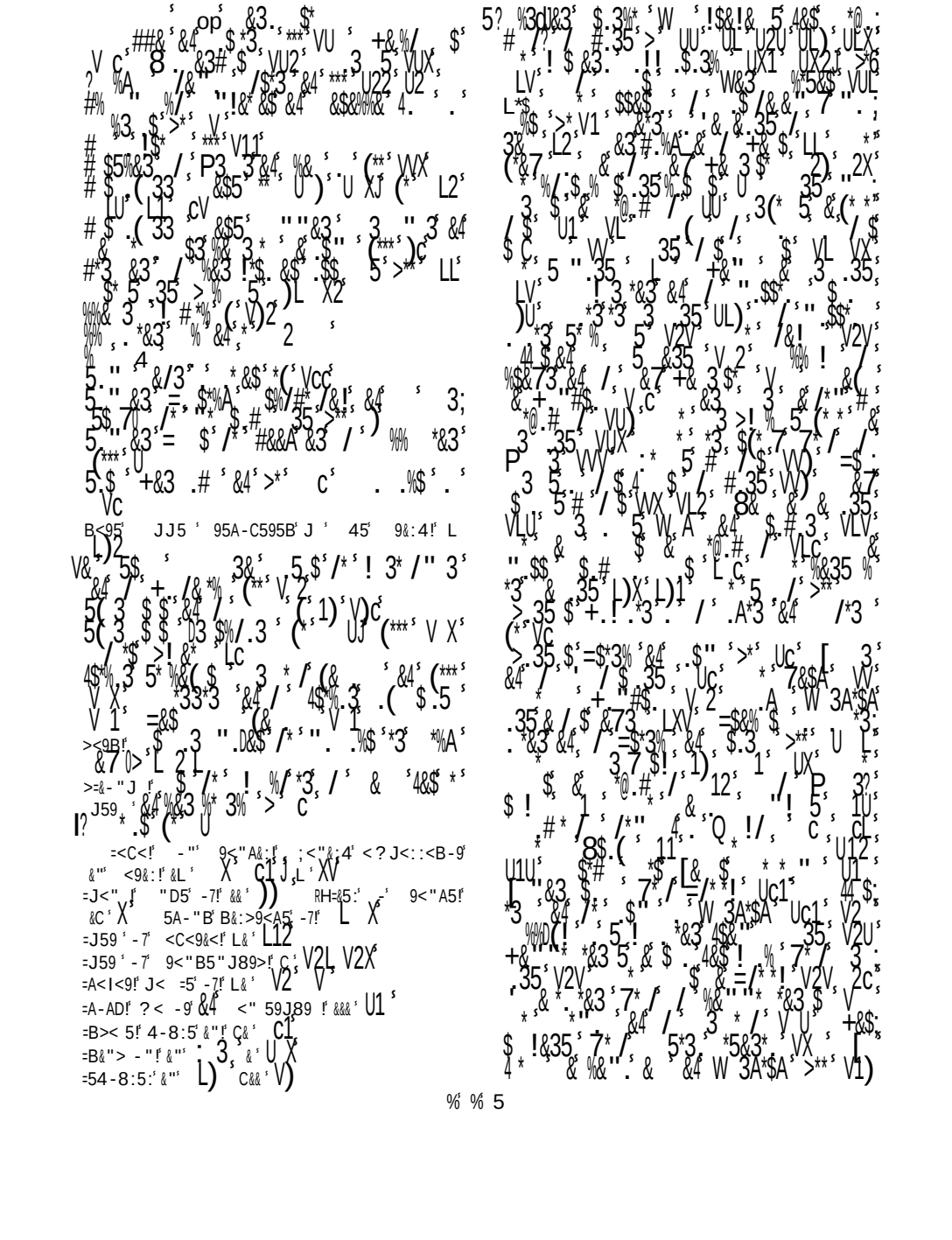
-7' A-:!E 985' 48?<"' ;& !' 985' D&"B"5::!'< 985' B5:&95'
-' :<C5' 459' 79-?' 459:5=7!' 4<B' < 95<=' ;=<A5' 9-?'
45' B<' -7' (<9' 8<9@:' ?<99&<>5' 6& 4' 9<"A&:' '
45' ">=&:4' 49-"5' 6<:' 45' B95<?' -7' 459' &?<>&"<&-"!'
<"B' 45' ?5<":' -' <99&C5' <' &' 459' 8"A5<:&">' ;9<A &A<=
:8B' " ' A-" 5?;-9<9' 89-RR5<"' -C595&>"!' <" '
">=&:4' -C595&>"'&"'<"'5<9=&59'<>5!'6-8=B'4<C5'B55?5B'
"-' ?5<":' 8"R8:&7&<J=5' -' 95?-C5' :-' ;59&=-8:' < 9&C<='
-6' &' 6-8=B' 4<C5'7<95B'k 6&4 459'<7 59' :45' A<?5' -'
">=<"B!' 45'7< 5' -7' B6<9B' !' -7' &A4<9B!' -7' 5"9'
!' -7' 45' 9&"A5:'&"' 45' -659!'<"B'=< 59' 5 !' -7' 45' 8"$'
4<;;' :-"' -7' 45' 8"4<;;' =<95"A5!'?&>4' 5==' 4< S
5C59'?&>4' 4<C5'J55"' 45' &"B&95A' <BC<" <>5' -7' 4=<9'
8<9@:' ;9-:;5A &C5' &=5!' 45' B<">59'79-?' 459' ;95:5"A5'
4&' 45'95<=?' ?8:' 4<C5'&"7&"& 5=' 5LA55B5B'&' 45' 6<:'
Q' 45' J-:-?' :59;5" !@' Q' 45' 4-9"' &"' 45' 7=5:4!@' 64&A4'
EH-8=B' "-' J5' ;=8AD5B'-8'' <"B'<7 59' 45' 5J5==&-"' -7' 45'
-9 4!' <"B' 45' B&:A-C59' -7' 45' &B-=7&' A-":;&9<A !'
45& 459' 4&=&;' "-9' =C<' 5L;5A 5B' 4<' :45'6-8=B' J5' ;59$'
4&& 5B' -' :&8/C&C5' ' :55?:' <:' &7' =&I<J5 4!' 95?5?S
J59&">' 459' -6"' B<">59' &"' 459' :&: 59@:' =&75$ &?5!' 4<B'
:8B&5B' -' :456'<"'5=<J-9<5' 5"B59"5::' -' <;59:-"' 64-'
E#<:'&"' 45' :<?5'95=<&-"' -'459:5=7' 9-?' 4a' J5>&""&">'
4' 45' 5"B' "-' 9<A5' A<"' J5'7-8"B' -7' ;59:-"<=' <"&?-:&'
45' ;<9' -7' =&I<J5 4'' -"' 45' ;<9' -7' (<9' "-' 9<A5'
H7<" 4&">':<C5' 45'7&59A5:' 4< 95B
8' 4&:!' =&D5'<==' -459!'W85:&-":' A-""5A 5B'E6& 4' 45'
#&9>&"' %855"!' :4-8=B' J5' 9< 459' :8B&5B' &"' 459'<A &-":'
HJ<'' &"' 45' -;&"&-"' -7' 45' 4&:-9&<"' 64-'95=<5:' 45'?'
A&-":'<"B'6-9B:'<95'A<9C5B'8;-"'5 59"& ' ;&"&-":'
J8'7-9?:'-7'A=-8B'A95< 5B'J' 45';95C<&=&">'A8995":'
45' ?-9<=' <&9' 9&"A5:!' 64-'<95' A95B& 5B'-"' 45'
H@-">':&B5'6& 4' 45' 5C&=:' 64&A4'4<;;5"'&"' 45&9'95&>":!'
<9&>4'&"'5W8& ' -' 45'4-"-89'-7' 45'>--B&' 45'

M2. (! $* 2' *6' (78'()

/+&! 0>95< 5: ' <A4&5C5?5" ' &"' ">=&:4' 4&: -9 !' 45' J95<D&">' K' 45' J-"B:' -7' -?5! <"B' 45' 5: <J=&:4?5" ' -7' :;? 8<=' &"B5;5"B5"A5!' 6<:' A-?;=5 5B' 6& 4-8 ' J=--B:45B' 8"B59' =&I<J5 4:' <8:;&A5:!' <"B' =&I<J5 4' ?< ' 4<C5' 45' >=-9 ' -7' 4`' 6-9D ' (<" ';9-J=5?:' >9-6&">' -8 ' -7' & ' 6595' =57 ' 8":5 =5B ' -?5' 6595' B&:;-:5B' -7' -"' 45' :A<&7-=B' < ' 4& 54<==!' :-?5' &"' 45' 95C-=8 &-"' -7' < ' ' :-?5' 5 ' :89C&C5' -' 5: ' 45' A-89<>5' <"B' 45' &">5"8& ' -7' ?-B59"' ;-=& &A&<":

8 ' 45' 6-9: ' =5><A ' 64&A4' ;9&"A5:' -9' :<5:?5"' A-8=B' J5W85< 4' -' 45&9' A-8" 9 ' 6-8=B' J5' 45' 95:-=8 &-"' -7' <==' & :' ;59;=5L& &5:!' 45' 5: <J=&:4?5" ' -"A5' <"B' 7-9' 5C59' -7' <' 7&"&:45B' : :5?!' 64&A4' 6-8=B' "5& 459' 95W8&&E ' "-9' -=59< 5' &?;9-C5?5"

' W



<=7-89!' -=-"5=!' L&' ('
<=7-89!' &9' <?5:!' :&>":' 45' J-"B' 7-9' =&5'
B5: 98A &-"' -7' <9"=5 !' C&&&')(' 4<9>5B'
6& 4' 45' ?89B59!' &L') ' (89B59' -7' 4&:'
:59C<" !') ' -"75::5:' 4&:' :4<95' &"' 45

' <?&= -"! .*1' -=-6:' 45' %8A-'" -' 45' -=6 ! ..3! ..N
5A-"! 4&:' Q 565=' -7' - @ W8- 5B! C' *.+ &:' -;&"&-'" -7' 45' -:;5==59:! FM2'
5B<! 9 ! &' .,.! .,1'
5B7-9B' !4 ' 8::5=
5B&">7&5=B! &9' B?8"B! &&' 1,N
5B&">7&-=B! &9' 5"9 ! C&' *3'
5B =! 9-?65==@:' :5A95 <9 ! &&' FF2! F2F! F3.' -9 895B! C&' 11F! 112'
559! ;9&A5' -7! &'" 45' :&L 55" 4' A5" 89 ! &' .1! <"B' (*$
5>><9:! =&A5":5:' >9<" 5B' -' A :' 95:;5A &">!
&' ,,! ,N! 3*$33'' && 1,F! 1,1' &:4@:' Q 8;S *+1'
;=&A< &-'" -7!@ &' F! 31! *+F! *+M'' && 3M
5D5:J-8?5! C&&' 2N
5=5?&<"! &A4-=<:! &9' 1NN
5=&MC95! (' B5 ! &" 597595:' -' :<C5' (<9 @:' =&75! L&&' .N2' &:' 95A5;&-'" &'" -"B-"! .N2' 578:5B' <'" &" 59C&56' J' 45' %855"! .N3' '=5"> 4' 95A5&C5B! 45' 95?-": 9< 5:' 6& 4' =&I<J5 4! .N3$F+*' &:' 95W85:'95S 78:5B! F+*! F+1' 5"B:' < B5;8 <&-'" -' 45' %855"! F+1' 5=&C59:' 45' <":659' -7' 45' 95"A4' &">' -'" (<9 @:' :5" 5"A5! F+M' &:' 7&"<=' &" 59C&56' 6& 4' =&I<J5 4! F+M' 5 89":! F+2' AA8:5B' -7' A-?;=&A& ' &'" 4<: 5<8"587@:' ;=-! F*2' 9-8>4' J<AD' -' -"B-'" <"B' A-?? & 5B' -' 45' -659!
F*,
5=5"B5"! &9' 56&:! :5" ' -'" <'" 5?J<:: ' -' =&I<J5 4! L&&' N1
5=&">4<?! &9' B6<9B! C' *1M' (<B5' B5S ;8 ' -7' 95=<"B! 1*.' &:' :D&=78=' 98=5! 1*1'' C&&&' 1' &:' B5< 4! C' 1.*
5=&">4<?! &=&<?! &C' .3,'
5?J9&B>5! 45' ?<9 9! C&' M*2'
5?J9&B>5' -6"! B575<' -7' 45' 95"A4'< !&C' 1.3
5"57&A5:! 9&>4' -7';95:5" < &-'" -! && F' ?S ;9-;9&< &-'" -7! C&' .NF! .N1'
5"5C-=5"A5'=5C&5B! &C' FN*'
-""5 ! 9 ! 4&:' =5 59:' -' 5"9 ' # ! & 1*+! 1**'' && *.1' &:' B5< 4! *M+'
59>5"$-;$T--?! :&5>5' -7! L&& ' M.*'
59>45"! (<9W8&:! -;;-:5:' ;<"&:4' -;;95:S :&-"! &L' F*2
59D5=5 ! &9' (<89&A5! C&' *3+' <D5'" ; 9&$:-"59<' B&"J89>4! . . ,'
59D5=5 :! 45! & ' 1.F
59"59:! &C' ,N
59"5 ! 5"5=?! L' F*+' P"B59 <D5:' -' D&=' -9B' 89>4=5 ! F*.' 5" ' -' 45' -659!' F*F' L5A8 5B! F.*
596&AD! A-"7595"A5' <! C&&' *N,' 575"A5:' -7! .2*' -"7595"A5' <! -' :5 =5' 4-' :8AS A5::&-"! C&&& '*+M! **+
5 -"! <?5:! 9A4J&:4-;' -7' ' "B956@:! &C' 3
5 -"! <C&B! "5;456' -7' 45' <J-C5! &C' .*' 8AA55B:' -' 45' <9A4J&:4-;9&A! M+' 5&@:5$
A8 5:! &C' 21' :' A<9B&"<= 46<9 :' 5"9 ' # ! &C' *.M' &:' ;=<" :' -' ?89B59' < 48"B95B' >5" =5?5"! *3H! &:' 7-9>59' <"B' <995: ! .+.' '" =<AD"5:' <: =5! .+2' &:' A4<9<A 59! .*.' < :' A-=<"B' 8"B59' <'" &" 59B&A ! .*F' 5 89":' -' ' "B956@:! .*N! . . .! ..F' 5' <"B' 4&:' A=59>' B5A=<95' 7-9' 6<9' <><&": ' ">=<"B! ..N! .FM! .F2' <99&5:' -77' 45' %855'" -' &9=&">! .F3! .1*! .11! .1,' &:' A985=&5:! F+M! F+3! F+N' -":;&9<A ' -' D&=-' 4&?! F*,! F.*' &:' 9&8?;4! 1,+' 5?;:' -' ?89B59' &:$ 4<9 ! 1,..! 1,1' &:' C&A&-8:'=&75! 1,M'' C&&' 5 -"! 9A4J&:4-;'-7' =<:>-6! (<9 ' 8<9 @:' <?J<::<B-9' &'" <9&:! C&&& ' NM! *.,' &:' A-?;=&A ' &'" <==<9B@:' ;=-! L&&' .*1' '" A-??8"&A<&-'" 6& 4' 4-' %855'" -7' A-:! .FN
5C59=5 ! -": <"A5! &&& ' F.3'
56=-! &&& ' 1*3
5I<! 45-B-95! C&&' F3*' 8:;5A 5B' -7' J5&">' A-"A59"5B' &'" 4-' ?89B59' -7' 8&:5! 1NM
&J=5! 4-! J89" '<' <8=@:' 9-::! && ' 11' &9:' -9B59' 7-9' ;=<A&">' & ' &8' A489A45:! &&& ' ,2' 9<":=< &-":' -7' & ! , ,! ,N' (&=5:' -C59$ B<=5@:' C59:&-"! 3+! 31' (&:8:5' -7' & ! F,+' P:5' -7' & '<==-65B' &'" A-=<"B! &C' .*,' 45' @ 95<' &J=5!@ -9 9<"?59@:' <"B' <C59"59@:! .N*' 5: 9&A &-":' -' 45' 8:5'-7' & ! .NF' :' &"7=85"A5! 13.
&>-B! &9' 9<"A&:! &&& ' *N1' <&:5:' <'" &"S :8995A &-"! *NM! *N,' 5" ' -' 4-' -659! .+M! .*.' L5A8 5B! .*N
&==' B-' 59` &A-' -?J895"B-! C&' .++
&==! 9 ! <' <8=@:' 9-::! C&& ' *3'
&="5 ! ?<9 9' <"B' 79&5"B' -7' <&?59! && ' 3M
&">4<?! <; <&'" x<7 596<9B:' &9' &A4<9B ! <' &">=5! L&' ..F' 77' ?596&AD! .FF' 9B595B' -' :5&15' 8 A4' :4&;:! 2,2' 5S 75<:' 45' &>4=<"B59:' <' (-! L&&' .+.' &==:' 45' ;<"&:4';9&:-"59:! L&&& ' M+M! M*+' &9B! &:4-;'-7' 45:59! B5;9&C5B' -7' 4&:' :55! C&' 23' E
&:4-;! 4-?<:! (<9 ' 8<9 @:' <>5" ' &'" ">S =<"B! &L' F.
&:4-;9&A:! &" 5"B5B' 5L 5":&-'" -7! &&& ' FN2'
&:4-;:! 45&9' B575"A5! &' ..2! .11' &>4' :8?? -"5B' J57-95' 5"9 ' # ! .MF' (-B5' -7' 5=5A &">! .+3' ;;-:& &-'" -' "B<==! &&& ,3' 578:5' -' 9<":=< 5' 45' &J=5! ,N' 45' &:4-;@:' --D! .1,' 45&9' :5C59& ! FN3' 45&9';-659' 95:9&A 5B! &C' .NN' -' J-' <;;-&" 5B' J' 4-' 9-6"! C' 2M' <&=895:' -7! .MN' BC&A5' -7! FF*' &L' "56! ?<B5! C&' *N3' 45&9' <9J& 9<9' A-89:' 95: -95B! .NM' 45&9' 95A5;&-'" J' %855'" =&I<J5 4! C&&' *,' 9-;-:<=:' 7-9' A-?;5==&">' 45?' -' :8J?&' -' 45' 9-6"! .+' 45&9' 4&'" < S 5"B<"A5' <' =&I<J5 4@:' 7&9:' <9=&<?5" ! 1+! 1*' 5:-=8 &-'" -7' 45' < 4-=&A' J&:4-;:

{M1' 45&9' :;55A45:' &'" <9=&<?5" ' <>$<&":' 45' 8;95?<A ' &=!' 22' 45' < 4-=&A' ;95S =< 5:' :5" ' -' B&5' -659!' ,2' 45&9' 95< S ?5" ' =&595!' 3,' (*$ ' 4-' -< 4' -7' :8;95S ?<A ' -7595B' -' 4-' J&:4-;:!' 3N' -78:5' -' <D5' & !' N*' 5;9&C5B' -7' 45&9' :55:!' <"B' &?;9&:-"5B!' N.' 5"895'-7' 9- 5: <" ' <"B' < 4-=&A' ;95=< 5:' A-" 9<: 5B!' *,1' 45' &:4-;:@ &==' ;<::AB!' F+F$F+2' 4-' %855"@:' :;55A4' -' 45?!' F*2' 8& 5' -7' =&5&9' B&-A5:5:' &'" *M2N!' &:' 2+M$M+,' <9 S 69&>4 @:' -;&"&-":' -7' J&:4-;:!' L' **2' 5S ?<"B' -'" 45'%855'" -7' A- :!F2+' 9-6&">' J& 59"5::' <><&":' 45?!' L&' 1.' (*$ ' 4-' %855"@:' 95< ?5" ' -7' =&-?!' 3.' 59' :;55A4' <><&'" -' 45?!' F.F' (*$ ' 45&9' W8<995' 6& 4' 4-' -??-":!' FF,' 45&9' 9<"" ' <"B' <C<9&A5!' L&&' 2!' 2N' 4-' %855"@:' 95< S ?5" ' -7' 45?!' M1F!' M13' 45&9'<"-?<=-8:' ;-:& &-"!' MM*' 45&9' 5=5A &-'" <"B' A-":5S A9< &-"!' MM.' E

&:4-;:' -7' -=5B-' 4 ' -=5B-'

&:4-;:!' 9&:4!' C&&&' F,1'

=<AD!' B<?!' ??B595B!' C&&&' .M,'

=<AD' --D!' 45!' <><&":' ?-"<: 59&5:!' &&' 12+'

=<AD' 5< 4!' <' 599 !' 6&&' 1*1!' 1*2'

=<AD<BB-9!' <&9B' -7!' &L' N3' L5A8 5B!' NN'

=<ADJ<==!' (< -9' -7' L5 59!' C' *3,'

=<AD"5::' :8995"B595B' J' 45' 9-"A4!' C&&' ..2'

=<>-!' &9' 5-9>5!' 95:A85B' J' 5"9' # ! &C' 2+2' &:' B5;-:& &-":!' 2*F'

=-&:!' 9<>5B' -7!' L&&' 1.*!' 2.N

=-8" !' &9' 4-?<:!' 4&:' A-995:;-"B5"A5' 6& 4' -9B' -J59' 8B=5 !' C&&' .3F'

=8" !' &9' 4-?<:!' &&&' 1.,'

-A459!' -<"!' C' *2,' 89" !' .N+'

--D&">!' 9!' &' F.*' "B' 45' 8"' -7' 5" ! &&' *,M' &:' B5< =&!' .*3'

-B5"4<9<!' 5L<?&"5B' J' 45' -8"A&=!' L&&' *3+'

-B !' &==&<?!' C' N,

-&:$B<8;4&"!' 95"A4'<?J<::<B-9!' C' 132!' 1N1'

-=- R"!' &9' 4-?<:!' <9=' -7' &= :4&95!' "" -' -=A "@:' 7< 459!' >-5:' -' -=->"<!' &' .2,' &:' &": 98A &-":!' .2.' '" 45' ;9&:-"59:@ 9&<=:!' &&' 2+2' :"-' <' 4&:' A4&=B95"@:' 9&<=!' M*M!' 2*,

-=5 "!' "5!&' *22' AD"-6=5B>5B<:' 5"9' # @:' &" 5"B5B' 6&75!' *23' 59' 5C&=' 5B8S A<&-"!' *3F' -9 9<&:' -7' 459!' *31' 59' A-""5A &-'" 6& 4' -9B' 59A !' *3M!' &&' 131' 5 59' -' (9' (5= -'" -"!&' *32' 59' A4<S 9<A 59' J' &9' 4-?<:' < !' *3,' 59' =-C5'-7'5<&">!' *3,!*33!' *3N' 59';-:& &-"!' FN+!' 8" &">!' FN*' -5:' -' -8=->"5!' & N2' 59' ?<99&<>5!' 1*3!' 1M3' 59' A-9-S "<&-"!' 12N!' 123' 59' J5<8 !' 121' '" &:459' <"B' (-95!' &&' .1+' 5B&"5:' &'" 7<$ C-8&!' 13M!132' 5A95'&"W8&9&5:!' 13,' 59' <995:' <"B' 5L<?&"<&-"!' 133!' 13N' 59' <8" ' <B ' -=5R8&!' 1NF' 59'=5 59' -' 45' &">!' M+*!' M+1' 59' 9&<=!' 2+,!' 2*, 5" &:4' R89 !' 2+,' -8"B' >8&= !' M*,' &:' -7' 559:' J' 64-?' 9&5B!' M*2' 59' A-"75::&-"!' M.1' 59' A-"C59:<&-'" 6& 4' &">:-"!' 2.2' 59'=<:' 6-9B:!' M.,' 59' 5L5A8 &-"!' M.3

-=-C"!' (<9 !' &C'21*' (<99&5:' &9' ' <95 !' 7? E

-=->"<!' <9B&"<=' >-C59"-9' -7!' -'" 45' B&C-9A5' -7' 5"9' !' &'*1+' -"7595"A5'<!' .M,'

-=--'" <: =5!' 4-'%855'" -7' A- :' <!' &L' .2M 3$ \

-"B' -7' ::-A&<&-'" 7-9' =&5' ;9- 5A &-'" -7' %855'" =&I<J5 4!' L&&' 1F!' 23'

-"&7<A5' !' -;5!' &&' N!' *.

-""59!' 9' B?8"B!' 6& 4' 45' -;5'<' -S =-->"<!' &' 1*+!' 1*3'' &&' *F2' ' (<9:5&=5:!' *M.' &:' &" 59C&56' 6& 4' 45' -;5!' *MF!' *M3' &:' ;9-7=&><A'<' &A5!' &&&' .31' 5S A-?5:' J&:4-;' -7' -"B-"!' &C' **1' ;;-:5:' A489A4' C&:& -9:!' C' 2,!' *3M!' *32' '" 45' (<9:4<=:5<!' .M1!' .2,' -?5:' -8' &"' 9&8?;4!' C&' 2F!' M1' "W8&9&5:' <J-8' 45' A=59> !' .M,!' F*1!' F*,' 9&:-"59:' J57-9-' 4&?!' F.,' 8" 59' <"B' -?D&":!' FFF!' FFM' &:' A-<=' 4-8:5!' F3N' '=<B @:' =5 59' -!' F3N!' L7-9B!' 1+2' ":8=:' 9<"?59!' 1+,!' 113!' 12M' 89":' 9- 5:S <" :'<' 95" 7-9B!' M*3' &">=5B' -8'7-9' 45' <C59:&-'" -7' %855'" =&I<J5 4!' C&&' 1' -6' 95A5&C5B' J' 45' %855"!' *,' '" 4-9' 7&9:' <9=&<?5" !' 1.' 9-8>4'8;'7-9' 9&<=!' 1N*' -&8?5B' -' 45' (<9:4<=:5<!' 1N*' -9B59:!' A-A4!' 9<C<>5B!' &C' *.,' L' 1.'

-&>4-:&!' B5' %8<B9<@:' :5A95 <9 !' 4&:' 95C5=<S &-":' -' 5A&=!' C&&' FN,$FNN'

-9>45:&!' -'" 859<8@:' :5A95 <9 !' L' F**!' F*M' -9-8>4!' -9B!' &&&' *+1'

-9 46&AD' <:=5!' 45' %855'" -7' A- :' <"B' -465=<!' &L' 3+

-::8!' -8" !' =C<@:' :<B 4-=B59!' 4&:' 95<S A459'<' - 59' <?!' L' 3,1'

-465=!' <9=' -7!' :5&I5:' ?-"5' :5" ' 79-?' ">=<"B' -' 45' A-:!' C&&' *MM' -"S :;&95:' 6& 4' 99<'" -' A<99' (<9' 8<9' -& !' 1+2' :A<;5:' 79-?' B&"J89>4' <:=5!' <"B' &?;9&:-"5B'&'" 596&AD!' C&&&' ,1' <"$ B-=;4@:' A4<9<A 59' -7' 4&?!' ,M' ?;9&:-"5B' &"' 45' -659!' ,2' &J59< 5B!' ,2' 8?S ?-"5B' -' B&"J89>4!' J8' 5:A<;5:!' *1N!' *2+' 5R-&":' (<9' <' B&"J89>4!' .++' '" 7<C-89' 6& 4' 4-9!' .+M' AA-?;<"&5:' 459' -' 45' -9B59!' .+,' :A<;5:' 79-?' -= 9--B!' .M2' 5"B:' 45' %855'" <' 8"J<9!' .2M' 56<&B5B!' .2,' 45' %855"@:' <775A &-'" 7-9' 4&?!' .N2' &:' A4<S 9<A 59' <"B' A<9559!' .N2!' .N2' -8"B5B!' F1*' &>":' 45' J-"B' 7-9' 45' B5: 98A &-'" -7' <&"=5 !' F1,*' 9-;-:5:' 45' ?89B59!' FM*' 4<9>5B' J' <'" <"-" ?-8:' 69& 59!' &L' ,!'3!' F+' P"<"&?-8:=' A-":&B595B' -' J5' -"5' -7' <9"=5 @:' ?89B5959:!' M' -

P

J5 79&5B 7-9 45 ?89B59 .2 5: &"5B -J5 48:J<"B -7 (<9 8<9 !. .2 &: 06&75 .2 <: =5: >&C5"" -4&?J 45 %855"!F+ &C-9A5B79-?4&:6&75!F*(<D5:<BC<"A5:-(899< !FM 95;<9<S &-":7-9 4&:9&<=!F3 -"B J5 655"" 4&?<"B 45 %855"" -?<99 !FN! 1+ &:9&<=! 11 45 R89 !1M AW8& 5B! 1N 8;S ;59<"&":=&5&: <C59"!2. &:<JB8AS &-"-7 45 %855"!21 "5"B:-B5:9-9&"A5<?5:!2, 95<5B 8D5-7 9D"5 !,F (<99&5B -45 %855"",F!,1 <D5: 45 %855"" -9=&6&AD <:=5!3+ 7759: 9&<=J :&">=5A-?J< &:A4<=5">5 <AA5;5B J 8=&J<9B&"5<"B (-9-"!N+! N* &:7=&>4!N. 45 A<:D5=5 59:! **,! *NN! .+F :A<;5:-45 9D"5: <"B -5"?<9D!*2N! &:&?;9&:-"?5" <"B B5< 4! *2N

-=;4! &9 95>-9!&&&2.1

-8=->"5 <D5"" J 5"9#!&C FM1! FM,! F2+! F23 5:&5>5B J (B5 &5I! FNM! 1FN -9 &7&5B J -?59:5!C.2 LS ;5":5:-7! .2*C<A8<5B! J ">=<"B! .2

-89J-"! 8D5-7! <D5: -?5!&*++

-89A4&59! &9 <;4! L MMF

-89>5:! 45 8>85"-:B575<5B&"! C&&1*N

-89D5! A95<5B -9B =<"9&AD<9B5! &C! *+1

-89"5! ;95<A45:<8=&: 9-::! C&! 2

-89"5! &9 -4"! :5A95 <9 !C&*NF! .++! .N3

-65:! 45! &&& *M+

-65:! &9 5->5! &L M*. <9"A<:=5! M*3 -:5: &! MFF ! &:;8"&:4?5"-7 45 &":89>5" :! M2F

-65:K &9 &AJ<9B! 8"A=5 -7 -4"" "-L&: 6&75! &&& !*M2! *MN

-65:! &9 -J59 !C 3*" L& .,.! .,F! .,,! .,3 2+N! M13! M2+

-L>9<C5! A489A4 -7! &L M+2 (*$

-L=-!&?;-:895-7 45 J-6&">9--B -7! B&:S ;=<5B! &&N.""&&& .N+! .N.

-<9B! &C 1MF! 12M

-B! -9B! :&>":45 <BB95:-7 45 A-A4 9-5:<" :-%855"" =&I<J5 4! C&& *..

89-"!&L 1F1

-59! ?<-9-7 -B?&"! C *2N <">5B! *NN !

9<J<I-"! -=-"5=! 4&: B5:-=<&-"! -7 -"S "<8>4!L& .13

9<B7-9B! -4"!&"" &">4&=&;&:4-8:54-=B! C& F2M &:<AA-8" -7 4&=&;&:B5:&>":<"B A4<9<A 59! F23

9<B7-9B! 45 ?<9 9! C& F*, 4 (*$

9<B&">! &C 1.,

9<"A5 -9! < 9<& -9! &&&! 1M3

9<"B-"! &9 4<9=5:! 8D5-7 8&7-PA! &**M "";-659!*2, (<99&5:45 9&=x75:(<9! *3F "" "5 -=5 "&:9&<=<"B B5< 4! M+2! M.2 (<B5 A-?<"B59 &"" A4&57! &&& =!' **N &:B5< 4! &C 2*+

9<"L4-=?5! B-:9- A&=! L 1F

9<!!&9 B6<9B! C& *M,

9<!-9B! C& 111

9<!<JJ5 -7! &&1FM

95B-9-B5! -9B -7! &&& .,M

95B-9-B5! B?&9<=! L .FN! .1+

954-"=<6&" 95=<"B! && .2." C&&& . AS A-8" -7 45 954-":! M

9-95-"! &9 &==&<?!&& F+,! F+3 5"" -45 -659! 133 545<B5B! 2.

9595-"! &9 "B956! &"" 95=<"B! C 1*,! 1.M! %8<995=:6&4 9-"5! 1.,

95 495"! ::-A&<&-"-7 49&: &<"! && .2

95 !C& *,,! *3+! *3N

9&AW85?<9! (B-! 4&: ?&::&-"" -">=<"B! C&& M+N! M*+

9&B>5:! -4"! &&& F3*

9&>& <! 454=! 459 C&:&-"-7 95=<"B! && .13

9&>& &"-8":! L F1.

9&=5! -6"-7! <D5"" J 5=<(<9D! L F,1

B5 9&::<A! L 1N2! 1NN

9& <&"! 95<!;9-;-:<7-9 458"&-"-7 ">S =<"B <"B A-=<"B 8"B59 45 "<?5-7! C&& *MN

9& <"! 95?<E"5 :5"J %855"" =&I<S J5 4&"-! C&& .+F

9-?=5! &9 4-?<:! C M+F! M+M 5A-?5: 55;59-7 45 95< 5<=! L& *M* ;;-:5B -45 =5"^-"?<"&<>5! *M*! *MN &: ::55A4 -45 %855"" -"45 :8JR5A! 95:5" 79-?9<D5! 1+F

9--D5:! &:4-;-7 =-8A5:59! C F,*95S :&B5:<9"?59&: 9&<=! F,.! F,F

9-6"! 9A4J&:4-;! &C ,,! NN

9-6"5! &9 "4-"! &&& 121! 12, 5A5RC5: 4&=&;! C& .F1 :-9B (-"<>85! 95S A5&C5: -=5! .,+! .,1

9-6"5! "4-"! ."B #&:A-8" (-"<>85 4 (-"<>85

98>5:! A-"7595"A5<!C&&& 12M

98"-!-=?!<45 <=<&:A-"7595"A5! &C 1H1! m1M2

98":6&AD! 5"9! 8D5-7! &C .23!F..! FFM

98::5=:! A-"7595"A5<!&C 1MF

9<"! &9 ! &*MM! 1MM" && M*F" &&& ==

9<"! 45 5:8&! -9 895B! L& F.N 9&5B! FMF L5A8 5B! FM3

9 B>5:! &9 -=?!=&58 5"<" -7 45 -659! C& *,.! *32 95<5B -9B 4<"B-:-7 8B=5! *N3! .*+! .*2! .N1 95:5" <9<?59&:5L5A8&-"! 1*3

8AA<"559:! 7&9::;5A&?5":-7 45! C& 1M1! 1MM

8AA=58A4& <B x(<9><95 A-! &L ,-$ F*! ,*

8AA=58>J! <&9B-7! &C .1

8A59! (<9&"!#NF &:=5 59:W8-5B!.,*$ &:J<B -;&"&-"-7 ">=<"B! F.F EO J-B 5L48?5B<"B J89" ! C& 122! 12, 8u! =&A<&-"-7 4&:(5 5A &-! L F.*

"8A

8-D489: f -9B' 4 ' "ADC&=-'
4&AD&&&7A=&- ?!f 8D5' -7!f &' =&B'
85D"&&&4 -9!f 9 !f =&:' =5 59!f <"B' 8"B< ' < '
s&"B :-9!f &' .3M
8>B5"!f <995: ' -7 79&<9:' < f &&' *, .'
8=&" ;59!f ==-"9 !f =5 59:' -!f W8- 5B!f &&&' 11F"
"M*3" "*1M
"="&-9f &9f -4'" <"B' <B f!&&&'.+N!f .*M!f . .*
=&8=?A9' &9f <=;=&!f &&&' .*M'
B=8="&59:!f 45!f &&&' =- '
8?=&&5f <&&L&' -7!f &C' 3.'
B-'w 89A"' -8" !f &C' F1+!f F2,'
89>4!f <B !f &&&' 1NM'
89>4&5 !f -9B' 4 ' 5A&=
89>- "A!f 69& 5:' -' <=C&"!f C' FM3'
89D5!f <9=' -7' =<"9&AD<9B5!f :8J?&:' -' 4-'
">=&:4!f
' M2+' 8"&:45B' JH (8=J ' :&' *N,' &:'
&?? -9<=& !f .2*' (89B595B' J ' 4&:' J9-S
459!f .2*' 1
89D-!f 45-J<=B!f D&==:' & I?<69&A5f L&' .*F'
&==5B!f . =&E
89D5!f P=&AD!f L&' *N2' 8"&:45B!f *N,' <=:5B'
-'" -' 45<B' < 95J5=&-"!f .*1' (89B59:' 4&:'
J9- 459!f <"B' J5A-?5:' <9=-7' =<"9&AD<9B5!f
.2+
89D5:!f 45&9' 758B' 6& 4' 45' A9 &=B&"5:!f L&'
.*F' &:5E<><&":' 4-' ">=&:4!f .F*' 5$
@7A< 5B' J ' (<=J !f .F1'
89"5 !f &:4-;!f 9575995B' -!f &' F*+'
89" E :=<"B!f -AA8;&5B' J ' 45' 95"A4!f C&&"
*3M' 4-'<9-'B&:=-B>5B' J ' B?&9<=' &"S
59!f *32
899-8>4:!E B?&9<=!f -;;-:5:' 9<D5@:' < <AD'
-'" G <B&I!f L&&' F,*' "B' <><&"' <' #&"$
B5" !f 3,F' <AD5B' J ' 9<D5!f F,*
8:4&">!f 7-9' -7!f <D5"' J ' -9B' 95 !f 9&'
1N.$ @
& =59!f &9f B?8"B!f L' 1N.' 1NF' 5 <&"5B'
&'" 8J=&"!f M+M 0 E
8 =59!f &9f B6<9B!f eL' 1N.!f 1NF' &:' B5$!
@/;5"BA47 H ?89B595B!f 2+x&' 4<=5">5:' P 5
">=&:4' -"<'" -' ?<4!f M+*' &:' 95C5">5!f '
M+M' 5 <&"5B'&'" 8J=&"!f M+M
B =59=' -9B' &?A:!E&&' F.F" &C @22E H
> =59:!f 45&9f 6<9:' 6& 4' 45' 59<=B&"5:!f @ &&&'
M2' E =&B&9f -;;J :&&-"E -E =&5' ">=&:4'
5 =59:!f L' 132!f 1N." L&' .*F' 5: 9- :' E
4-' A- :' -7' (8":' 59!f L' M1=
&H 5#<" &EL&!f . . .'
B :!f <&B!f FN' E E
\"&9&>x' 4!f 4J?<D!f &&' '
k H9-4!f B-' &>4' B"&&9<=' -7' 9<"A5!f &&' '!f !
#' *2.!f *22

!f !f 4&:' C- <>5!f C&&&' 1.1
<J-!f 5J<: &<"!f 6& 4' 4&:' 7< 459!f C&&&'
1.M
<J&&:!f B&:;-=8&-'" -7' 45' A-"7595"A5' <!f &&&'
M.1" &C' F,*!f F,2' 4-' <=5' < <AD5B!f
11F' 5A-"B' A-"7-95"55' <!f 1M1' @#99&C"=
-7' -=5' <!f C&' .2N' =- :' -' J5 9< ' &!f 1M3!
1MN' L;5":5:' -7!f 13N' <9"&">:' <J-8!f
1N+' 5:&5>5B' <"B' <D5"' 79-?' R&">=<8B!f
1N'x!f 1N+!f 1N3!f 2++' **FH***2IM++' "L&5'
-7' 45' 95"A=&' -' D55;' &!f 9K&&' .N' ": 98AS
&-":' -7' 45' 95"A4' &">' <:' -' &!' F1!f MN'
=&I<J5 4' &":&: :' -'" & :' 95: -9< &-"!f 2N!f .MM!f
.M2' 99<">5?5" ' -7' 45' -">95: :' -7'
<?J9< '" 22' 578:<=' -7' 45' 95"A4' -'
5" 59 <&'" &&5' W85: &-'" -7' 95: -9< &-"!f .22'
=&I<J5 4' &":&: :' -'" & :' 95: -9< &-"!f 1F3'
&9f 4- ?<:' ?& 4@:' ;9-;-:<=' 7-9f & :' 95A-S
C59 !f 1,M' :'7-9?<=':8995"B59f B5?<"B5B'
J ' 9<"A5!f 2F1' 578:<=' -7' 9<"A5' -' >&C5'
& ' 8;!f &L' 23' 45' 9?<B<' -77!f L&&' 1,+!f
1,M
<=B59-"!f -A-!f L&&' 132!f 1NM!f 2*2'
<=CA9=A !f &'" <' ;<::<>5' -7' <9?:' J57-95' 5$
9-8-""-!f &C' .,2
<=C&"!f -4"!f C' NN!f = !f F 1!f 11F'
<=C&"&: :!f 45&9f C&56:' -7' 45' 9< 59f --D' -7'
MMN!f C&&' 3+!f 3' '" 9<"A-!f &L' F+2' &:S
&"A &-'" ?<B5' J ' =&5' < 4-=&A:' J5 655'"
8 459<"&:?' <"B' <=C&"&:?!f F..!f F.F (*$ '
<=C&"&:?' <' -9 4<?;-"!f L' **F!f **1'
<?J9< !f J5:&5>5B' J ' 4-' 9&"A5' -7' <9?<!f
L&' 1*3
<?J9&& !f ;5<A5-7!f C&&' 2+'
<?J9&B>5!f A' <:' -' 5>>&">' A4-=<9:' -7!f &'
31' @ 5:59 5B!f C' .,3' %855'" =&I<J5 4@:'
C&:&!f -!f C&&&' N*' :': ?;< 4 ' 6& 4' 89&S
<"&:?!f L&' F+3'
<?;J5=!f 9A4&J<=B!f &C' 13'
<?;J5=!f &9f -4"!f -7' 8"B !f &C' .1*
<?;5>>&-!f <9B&"<=!f &' *1,!f *2M'" && .+N!f
FF*' 5;9&C5B' -7' 4&:E:55' -7' <=&:J89 !f &&&'
..
<?;&<"!E B?8"B!f 45' 5:8&!f L&' F+3' &:'
?&::&-'" -' ">=<"B!f F*1' 5<A45:' -"S
B-"!f F.+' 9&<-45:' "5<9' ?& 47&AD=!f F.*'
&:' 8AA5::!f 3.*!f FF*' 4&=5">5:' 45'
">=&:4' B&C&"5:!f F.M' 8J=&:45:' 4&:' E 5'"
=5<:-":!@ F1*' &:' A<9559!f F1*' $ \
L<?&"5B' J57-95' 4-' %855"!f F1+' -9S
895B!E F13 E &:' B&:;8<&-"!f FM.' &:'
&&<=' <"B' 5LA5" &-"!f F2F$F23'
<" 59J89 !f &" 597595"A5' 6& 4' 45' 5=5A &-'" <
&&&' F3+
<9<77<!f <9B&"<=!f 5=5A 5B' -;5' <:' <8=' #!f
C&' F13' 4 ' <J=' #
<9<77<!f "5;=&56' -7' 45' =<:!f C=' 131' 5>-&<S
&-'" 6& 4!f L&&' F+2
<9J5"E ' &=!=!f 45' %855"' -7' A-:' <"B' 45'
-9B:' "&55' < !f &L' '
<&=<"!f 59-?5!f 4&:' 4-9-:A-;5' <"B' 45' 599-9

U

@A 4'&:' =5B' -f X&&' 1*.f &:' A89-' -7' 45'
9A4J&:4-;' -7' "B956@:f F,N
<9B5"f &9' 4-?<:f &C' .N+'
<9B&><"f -89' <Bj:' 7<;59' -7f &&&' .3N
<9B?<D59f <' ;95<A459f " 'F*,' 89" !' FMF'
<956!f &9' <6&"f 4&:' 5C&B5"A5' <><&":'
8995 f &C' 2*1" C&' *3.'
<956f &9' 5-9>5!$ &&' *,3" &&&K .21' -:'
&"' 45' @ (<9' -:5!@ &C' 1.2'
<956f &9' &A4-=<:f 4&:' <AA-8"'-7' <= f &
.2,' 9&5B7-9' 95<:-"f &&& FFM
<956f &9' 5 59f <' :A4--=J- f &'13" &C' .,M'
-?2<"B:' 45' @ #5"5 &<"!@ 1.+" C' *,*f'
*,2f *N3' -&":' %855"' (<9 f C&' *11'
-"':;&95:f *12$*1,K =&5:f *13f *NNf .+.f
.F.' '" <'A-?2&::&-'" -'5"B' 45' 6<9'&"'
A-=<"B:f C&&' .1+' ==5: -95:' B&:A&;=&"5'&"'
45' <9?' &"' A-=<"Bf .M.' 9B595B' -'
95;95:' ;&9<A f C&&&' 12F' ' 45' 8D-'-7'
-97-=D@:' 9&<=f L' F..' "' 95=<"B:f 1N.'
==&:'A985=&5:f 2++f M+,' -&":' ::5Lf M2M'
5<C5:' 4&?f MM3
<956f &9' 5 59f 45' -8">59f D&==5B'<' =5"$
?<=895f L&' ..N
<956f <B f :5<9A4'< 4-9' 4-8:5f C&&' 1*N'(*!'
<956:f 45f &C' 1.F' C&' *1,' 7' (-48"@:'
-9 f *12f *,*' (*$' 5 =5'&"' 95=<"Bf
' 133
<95 f 5-9>5f ;9-;-:<' -' ?<99' 4&?' -'
ws=<9' 8<9 f &L' .NFf FFF'
<95 f &9' 5"9 f A95< 5B' -9B' 8<:B-"!
C&&' 1+' -=B:' 45' =&:':'<' 955"6&A4f *MF'
=&I<J5 4@:' 95><9B' 7-9' 4&?f 1F*' <D5:'
45' <9 59' -' 4<9=5:' f C&&&' 23' ;$
R R:5B' -' 45' -97-=D' ?<99&<>5f &L' 1,+'
5"' -' A-=<"Bf 13+f 1N1' 5"' -'R-&"'
8::5L' &"' 45' "-9 4f M.F' &:' C&56:' -7'
45' A-&&B"A' -7' 45' %855"f MM,' 575< :'
<A9A:f 2NF' 45' %855"@:' =5 59' -' 4&?f
MNM' '" 45' -9B59f L' 1.' &:' =5 59'
-'" 45' B<">59' -7' 45' %855"f FF.' '
B&"J89>4f F1*' <:' A4<9>5' -7' 45' 8D5'
-7' -9 48?J59=<"Bf F33' " 59A5B5:'7-9' 45'
8D5@:' =&75f F3N' <"A&-":' -9B' ::5L@:'
9&:4' :A45?5:f MMF' 9B595B' -' B&"J89>4f
L&' .3+' 5"' <:' <?J<::<B-9' -' A-=<"B!
L&&' ..' 495< 5"5B' J' =&I<J5 4f ..f .F'
&:'0&" 59C&56' 6& 4' 99<"f .1' 5A5&C5B'
J' 99<"f .1$.,' 5"' -'" 5?J<::' -'
<?5:f FM,' &:' B5< 4f MMM
<95 f &9' -459 f 4&:' =5 59' -' 4&:' 7< 459f
L&&' .F' 5" Z'"<'"5?J<::' -' A-=<"Bf F13
<C=&"'>7-9Bf 4<'" @ 5&=@:' 9<&B' -"f C&&&' MF'
<9=&:=5f <8 5' -7f &&' 1' <5' -7' 45' B&-S
A5:5' -7f &"' *3M*f C&&' 12N
<9=-:f -"f :-'" -7' 4&=&;' f C&' *FM' -'
?<99' <' :&: 59' -7' 9<"A&:' f C&&' .F,'
"B' :8J:5W85" =' %855'" -7' A-:f FM1f
F3+f F3Nf 1N3' -":5"' -7'4&:'7< 459f 2.+'
45' ;9-&5A' A-=:f MF,' &:' A4<9<A 59f MF,'
<9?&A&&<A=f &C' 1,2
<99&AD759>8:f 45' <9=' -7' ::5L'=<"B:'<f L'
MM2
<9&&><7-=5f A<; 895'-7f L&' ..+'
<99&>-><-""-=f J&D5"f &C',.'
<99-6:f <AA-8"' -7' 45f C&&&' 3'
<9 59f ?<9:4<' -7' (8": 59f ?&8B59ABf L&'.**'
<9 4<>8"<A<; 895B' J' 9<D5f L&&' *M+'
<9 69&>4 f 4-?<:f <' <?J9&B>5f L' **M'
L;5=5Bf **,
<:45=f 9A4J&:4-;' -7f -7759:' 45' A9-6'" -7'
95=<"B' -' ;<&"f L' 1NMf M*N' &:'7-9 8"5:'
&"' ;<&"f M*3' &:'=5 59' -' =&-' -;5f M*N'
5"' -C59' 45' 79-" &59f L&' .1'
<:D5' =5 59:f 45f &C' **,f' *N+f .+f (*$'
.2.' 9-;-:5B' <5?;' -7' -9B' 5: S
?-95=<"B' -':5&I5' 45?f .31' 9-B8A5B' &"'
5C&B5"A5' J' 45' 5>-"f fF1,' 5&R5<"'
<94<?@:': <5?5" f FN2' (*$'
<::&=&:f &9' 95>-9 f &'*.3f *FMf *11f *21f
.23f FN.' &:' &" 5&6&56:' 6& 4' -;5' =5S
?5" f 1+,f 1+Nf 1*1" && FMNf 1+2f 1+,'
&:' &" 5&6&56' 6& 4' -;5' <8=' &'9-:RR5A$
&">' ""-' --- "f &&&' .+'
<::&=&:f 5""5B f <9=' -7f &C' .,f *NFf ..Nf
.1*f .12f F.*f 1++" &L' 1M' <D5"' <'
<">:&B5f ..2' "' 8?J<9 -"f L'*,N'
<:&?&9f 8D5f &"C<B5:' -99<&"5f L&' M+' "'
45' 5 459=<"B:f N+f N,' (5::<>5' 79-?'
=&I<J5 4f *.M
<:=5?<9 9' <D5"' J' 45' 9&:4f MMN'
<:=5?< "5'95A-C595B' J' 45' 9&:4f L' M2Nf
M2+' -89"5Bf L&' *,3'
<:=5 :=<"Bf L&' ...
<:=5-6"f ">=&:4' 5L;5=5B' 79-?f L' 2MN'
5 89"5Bf L&' *,3
<:9-f =;4-":-'B5f A4<;=<&"'-7' &"> =&&=&;!
C&' F.2
<459&"5'-7' 99">-"f &'*+2!*+,' 5 9-45Bf
**,' 59' ?<99&<>5f **N' 59' A4<9<A 59f
*.*f *12' 59' ;-:&&-"f *M.f *M1f FFN'
59' B&C-9A5f *2.f .M2f .,.f .,Nf FN3f
1*.f 1*Ff 11,f 122$1M3' 45' &":8995AS
&-'" ;<9 '>< 459:'9-8"B'459f F1*f F1.' 59'
=5 59' -' =&5' ?;59-9f FN1' x<"B'&&' *,*,'
59' 95:&B5"A5' <' ?;4&==f F1*f 1M1'
<==5B' 45'@ <B' <459&"5!@12M' 578:5:'
-'<;;5<9' J57-95' 9<"?59@:' A-89'<' 8"S
:<J-5f 1MM' 5" 5"A5>&C5'"<><&":459f 1M2'
=&5' 4&"D:'-7'=5<C&">' ">=<"B'f 1,F' P9>5B'
J' 45' ?;59-9' -'95?<&"f 1,F' 9B595B'
J';9-A=<?<&-'" "-'=-">59' -'J5' A<=5B'
%855"f J8' 9&"A5:' -6<>59f 1,M$1,,'
59' 95A5;&-'" -7' -9B' (-8" R-'<"B' =&5'
-?2&::&-"59:f 1,N' 59'A-"B8A'<' 4&:'
7&9:' &" 59C&56f 13+$13M'" &&' *22' ?S
;=&A<5B'&"' 45' A-":;&9<A'-7' 45' 8'" -7'
5" f *,3f *3+' 59' B5< 4'<' &?J-=-"f
1,3' 59'=<:'=5 59' -' 5"9'# !' 13+'
59' 6&==f 13*' 89&5B'<' 5 59J-9-8>4f
13*' 775A:' -7' 459' B5< 4' <J9-<B' &&&' N'
45' A'-7' &C-9A5' 95;5<=5Bf C&' **1

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"7;A4&:?f "><&:4 ="&9A4f <8 4-9 -7 45f C&& $,N (*$

<&459&"-B- (5B&A&f 459 ?<99&<>5f &F3Nf 1.,& *M*C F+, 5A-?5: 5>5" -7 ?"5-f)F+F >955: -45 -8"A&-7 95" f FF* 59 A-"B8A -45 -9 4-B-L ;95<A459:f F3. &9 &B"5 :5" J %855"= &I<J-=R -459f FNM 95:5" <5 45 :&5>5 -7 -85"f 1.M (<D5:<"577-9 7-9 ;5<A5 6& 4 -8B`f 1F, 9-;-:5:< ?<99&<>5 J5 655"= 4<9=5: <"B %855"= &I<J5 4f C&&& **1f *.+f *.*f *21f *2M 9<6"= &" -45 <4-=&A 5<>85f .FM 5"B: (B-#&=-59- -45 A-A4 =-9B:f &L *+F 59-7759: -45 <9- -7 (899< f *FF 5;95:5" <&-":-7 4<5=4`9<8= -f ":- A-A4 <77<&9:f *NM 5A=&"5: =&I<S J5 4 :;9-;-:<:f *N2 "A=&"5:-(<9 8<9f .+N 59 ;-=&A -7 -=59<&-"&"95=&>&-"f F+Mf F+2 5&I5: ">=&:4 :4&;:f 1*M 8>>5: =5"^-"&": 5<B-7 "R-8 7-9 =&I<J5 4f L *FF L&13 578:5: <:S :&: <"A5 -(<9 8<9 :79&5"B:f L .,M &:A8::&-"-" 45 95< 6& 4 ">=<"Bf FM. 59 ;<"&A< 45 A-"B8A -7 =&I<J5 4f F31f F32 5 59?&"5: -<J<"B-" 45 8>85S "-:f FNM -9D:8;-" 45 &">: 599-9:f 1+* 45 ?<::<A95 -7 <9 4-=-?56f 459 6-9Df 1+N 59 B&77&A8=&5:f 1..!1.F (<D5:<BC<"A5: -45 =5?&:4 9-5:<" :f L& *. P"B59 <D5: -95<6& 4 45 8>85"-:f M* -95::5:459 :-"=5"^-"::" ?<99&<>5 6& 4 =&I<J5 4f *1M 579&5"B: -"" "-"&-f 1N2 9-;-:5: <8"&-"-7 $ ">=<"B <"B 9<"A5 <><&": ;<&"f L&* ** 5A->"&:5: 45 A=<&?: -7 45 &">-7 <C<995f *. BC&:5: 5"9 -45<9 45 <5:B5;8&5:f ,1 5A5&C5: <=5 59 79-?=&I<J5 4f ,N (*$

<4&5f <459&"5f 6&75-7 5 59 (<9R f 459 J-B 5L48?5B <"B7=8">-8f C& 123

<4-=&A ;<9 f ?5B& <5B 95<A459 -7f -S 6<9B: ">=<"B f &C 1M+ L;5A<&-":-7f <45 <AA5::&-"-7 =&I<J5 4f C&& *F 45&9 ;-:&&-"<4 &:&?5f .+

<4-=&A 7<& 4f 95: -9<&-" -7f B5?<"B5B J 45 5: 59"&":89>5" :f C*,, &: &"AS &-"J5 655"<4-=&A:<"B <;&: :f C& FN -:&&-"-7 <4-=&A >5" =5?5"f *F+ &7S 7595"A5-7 ;9&"A&;=5: J5 655"<4-=&A <"B 9-5: <" f .F <4-=&A A-?;=<&" :-7 45 95:8= -7 45 5=5A&-":f E1* 9-5: -7 45 J&:4-;: <><&":'B-A 9&"<: A4<">5:f MM 45 45-=-->&A<: A-"9-C59: &" 5: ?&": 59 JJ5 f ,F 45 J&:4-;: B5;9&C5B <"B &?;9&:-"5B! N* 45&9 A-?;=<&" -7 &">4&=&;f NN 45&9 B5:;<&9<"B 495<-:>-:-C59 -9<"A-f .+. 45&9 B5:&95 -5=5S C<5 -9B <?=5 -45 49-"5f .+N 5S :5" ?5" -7 ">=&:4 <4-=&A:<><&": &">4&=&;f .2M 995: -7 ?<::?-">59:!f FF3!

FFN <4-=&A A=59>R$?5"5L;-:5B -" 45 ;&==-9 f F13 &::<&:7<A&-" -7 45 A-A4 A=59> f F,3 <"B-=;4:<AA-8" -7 45&9 B-&">:f F,N (*$ &: 95::<"B <">59 -7 45 ">=&:4 <4-=&A:f F32 &:A-C59 -7 <4-=&A&" 9&>85:&" ">=<"Bf 1++ &:S =- <= -7 45 <4-=&A J&:4-;:f 1*M 45 =<6:<><&": 45?? -95: 9&A =5"7-9A5Bf 1*3 45 (<:;9-5A 5B&"-:-?5;=<A5:f 12N$1,* &:<;-&" ?5" -7 45 A=59> f 1,* 578:5B ;59?&::&-" J 45 -;5 -<5"B &4 ;59:5A8&-"f 1,3 5"<=4<6: <><&": 45?;9-;-:5B &" <9=&<?5" f 131f 13M "B ;<::5<f 1N+ 45&9A-":;&9<A&5: -?89B59 =&I<J5 4f C&&& 2, 45&9 B5S :;<&9< 4&=&;:79&5"B=&"5::6& 4 =&I<S J5 4f ,* &=-7-9 45 95$&?;-:&&-"-7 4-5 4&9 F$"&"5 9&A=5:f F.3 775A -7 4-5 ?89B59 -7 89"=5 -"5 45?f F,3 <4-=&A 95$<A&-" &" ">=<"Bf &L *3+ 45&9 4-;5: 79-?45 W8<995 6& 4 ;<&"f F,* 95S ;<9<&-":-7 45 <4-=&A"-J&= -95J5=! 12+ "C5:&><&-" &" -45 A-":;&9<A f 1NM 8 J95<D -7 45 &":&995A&-"f M*F 9-A=<?<&-" -7 4-5=5<B59:f M*2 (*$ "B -7 45 95J5==&-"f MFN 8"&:4?5" -7 45 &":89>5" :f MM3f M22 <5 -7 <S 4-=&A&:?&" ">=<"Bf L 1 4-<4-=&A "-J=5:95;=<A5B&" 4- -8"A&=f F3 "$ =&-=&A A-"C5" &-" <?-">45 <4-=&A "-J=5:f,+ <4-=&A A-":;&9<A f *22!*M3 4- <4-=&A ;559: BA -&$?&"5 -5;5&&-" ;<&" 7-9<::&: <"A5f *M3f *MN -":;&9<A -:5&I5 45 %855"f *3, 575< 5B 49-&&>=& -97-=D:A-6<9B&A5f *33 &">4&=&;9578:5: -45=; 45 9578>55:f F*M$F*3 <4-=&A 95$<A&-" &" 89-;5f FN* 45 <9 4-?56 ?<::<A95f 1+1 "B&>"<S &-"&" ">=<"B <><&": 45 <4-=&A:f 1*F <>5 -7 45 <4-=&A:6& 4 &">4&=&;f 1., 5 59 79-?-"5 -45 8A45::-7 59&<f 1F* 5<9:<"B R5<=-8:&5: -7 45 <4-=&A:f 1F* $1F1 <4-=&A ;=- <><&": ">=<"B f L& *22 <4-=&A 95S C&C<=&" 95=<"B f *N*$*NF #&A -9 -7 4- <4-=&A:&" A-=<"B f F+. -=59<" ;-=&A -7 =&I<J5 4f F+2 -6<775A 5B J 45 95<:-" A f FF, P4 =&I<J5 4 <4-=&A:-7 9<"A5f 45&9 6<9:6& 4f 45 8S >85"-:f C&& 1.+ $ 3\ -9?<&-"-7 4- <J-=&W 5<>85f C&&& .FM L;=-:&-"-7 7<"<&A&:9<&" <9&:f L FM+ <4-=&A -">85 &" 89-;5 7-9?5Bf C&&& .FM <=&"f -9B 4&57 8:&A5f C&& FFN (*$ <C<=A<"&f 8&B-f &" ">=<"Bf C&& .f F1 " 9<"A5f L <C5"B&:4f &A4<9Bf L: <C5"B&:4f W8-5Bf && ==

<6B-9f 45 9--;59f :4-- : 45 ->5" 5"S "-Lf .31 L5A8 5Bf .3M
5A&=f (9: f ?- =&59 -7 -9B 89>4=A f L 1,F

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5A&=f &9 4-?<:f <;;-& 5B >-C59" -9 -7 9&==f L&& *1F !
5A&=f &9 &=&<?x<7 596<9B: -9B 89>4$ =5 f #.F+ ; 45 B<">59:-7 ><"B! F+F &4 -?59:5 f F,2f 1,3f 13N &>": B6<9B@: B5?A5f M+3" C& .1 "' 7<C-89 6& 4 (&&9 f F, "' =&5 A-?? &::&-"' 95$ A<= -=5f .22 D5 A4 -7f 4&: A4<9<A 59f M.Mf MFF 95;<95: 45 ;9-A=<?<&-"' -7 45 <AA5::&-"' -7 =&I<J5 4f C&& . 4-:5"' :5A95 <9 - =&I<J5 4f *1f &: <A &-"' -" 459 <AA5::&-"f *1 59 6-9B: - 4&?< 7&5=Bf *, 45 ;<"&:4<?J<::<B-9@: <AA-8" -7 4&?f 22 &: <BC&A5 - 45 A- 54 9-5:<" :f *F+$*F. 5"B: &9& <B=59 - J- -9 4f 6& 4 ?-"5 f *FM &: C&56: <: - < 6<9 6& 4 9<"A-f *23 P&: :D5 A4 -7 ?5<:895:7-9 45 "<&-"<B575"A5:f .*+ -5: - A- =<"B -5"B 45 6<9f .1+f -"B& &-" 64&A4f 45 &" 5"B5B - B5?<"Bf .1. 45 A-"7595"A5 -7 B&"J89>4f .M* <&=895 -7 45 "5>- &<&-":f .M, 99<">5: <=f B&77&A8= &5: 6& 4 (-"=8Af .M3 5A5&C5: 795:=& -9B59: 79-? 45 %855"f .MNf &: <":659f .MN 5 89"-7 5A&= - -89 f .22 &: 8";-;8=<9& 4595f .22f .,1 &: =5 59 - 49->?-9 -" A- A4 <77<&9:! .,M 9-;-:5: J- 95 &95 79-? ;8J=&A =&75! .,2 &: A-??8"&A<&-" - B5 %8<B9<f .,3f .,N &: A-?;<9&:-" -7 ! 45 ;-& - J5 A-":&B595B &" 6- :8& -9: 7-9 45 %855"@: 4<"Bf .3F &: <BC&A5 - &9 49->?-9-"f F+,f P:5: @ J 56< -@ ;95C5" 45 8B=5 $?<99&<>5f F*F P9>5: <=5<>85 6& 4 45 8>85"- =5<B59:f F*M 5=;5B J -9B <>5 !$ F*2 <: "5>- &<&-": 6& & B5 %8<B9<f FF1 B&:>9<A5 < -89 f F, 8;;-:5Bf 4<C5 J55"! 45 :5A95 ?-C59 -7 45 <B <45&"5 95 @: ?<99&<>5f F, (<& $ 0=<8B "- 985 4&?f 1*3 ! &: "-5: -7 @ ">=<"B@: ;59=& 7 -"BM J5 -C59$ 49-6"!@ 1*N &: <">9 B5J<5 6& 4 B5 %8<B9<!=1F 5"59<= 5B5 5: 5B J 45 ;5-;=5f 12F "B5<C-89: - >5 9&B -7 B5 %8&&B9<f 1,2f 13N "C5&>4: <><&": 4&=&;f 13F &: :;55A4 !-"' < ;5"<= =<6 <><&": 45 <4-&A:f 1N+ &: ;=<"' 7-9 45 :8AA5::&-"f M++ &: &"W8&9 &" - 9&:4 B&:-9B59:f C&&& M1 5-;5": ">5- &<S &-":7-9 45 8: 9&<"' ?<99&<>5f ,Ff &: 5"?& 6& 4 -9B -J59 8B=5 f 3M! 3N &"> 4&=&;@: -;&"&-"' -7 5A&=f !N+ &: <BC&A5 - 45 9-5:<" 9-;5"=< B5R&&<"B: -7 45 A- :f (&: A-995:;-"B5"A5 -"' 45 8: 9&<"' ?%P9&<>-f *.* &: <":&C-9 - " J59&"-B- (5B&A&@: -7759:f *. 9-5: -7 45 &:4-;: <><&": 45 %855"E: &"R8"AS &-":f *F3 5 59 79-?' &#954J&:&-; <9D59f *1* &: ;9-;-:<=: <: - 45 =8<C9&&&>- -7 45 %855"' -7 A-:f *13 &: C&56: -7 =&- ;59&=: -7 45 &?=5 ?<99&<>5f *MN$*2* "B -7 A-A4 <77&&&9:f .+* 5B7-9B: <"B (899< @: 95?-": 9<"A5:f .+N .*+ :D5 A4 -7 45 &II&-A-":;&9 CA :8'" -4&?f .$*, &: ; < =-9--B f .3+f &: <J=- -7 A-" 9<: J5 655'" 45 9A=&B8D5 ?&B 5&A5: 59f .32 &: "-5:-" =&5 W85:S &-' -7 :8AA5::&-"f F+, &: <BC&A- - &B"5 f 1*+f &: 9-5A &-"&: C&56:f 1F+f 1F* &: 95?<9D: -' 45 ">=&:4 7&:459&5:f 1F.f 1FF &: ?5<": - @5"A-8S 9<>5 ?<9&"59:!@ 1FF ==:V?<: f 1F1 &: ;9-5: <&-": - 45 %855"' 95><9B&"> A-A4 <77<&9:f &L *1M 45 %855"@: :;55A4 - 4&?f *M+ &:E <": 659f *M* &: ?5<S :895:f *3F &: @ >--B6&=@ - 4- 8:S 9&<"' ?<99&<>5f *3F ! &: <BC&A5 <: - A- &:4 <77<&9:f .+3f ..%' &: C&56 -7 4-;-:&-"' -7 4-%855"' -7 A-:f .FM 5"B: <:4<9;!"-5 - =&- "-9 459"' >5" =5?5"f .1+f ! ' 45 %855"@: 8"5<:&"5::<: - 459 95=<&-":C& 4 ;<&"f F.2 &77E59: 79-? 4- <?; -' -89 -"7595"A5<: - 45 7-95&>' ;-=&A -7 ><"B! FM, &: B&:?&::<= ;9-;-:5B - J5 B5?<"B5B J =& ;<"&:4 <?J<::<B-9f F,F -' 859<8@: <AA-8" -7 4&?f F,Ff F,1 5:&95: - <::&: 45 ;59:5A8 5B 5 459=<"B:f F,M =&: :D5 A4 -7 &=5 A-"B& &-' -7 ><"B < 4-J5>&"S "&"> -7 *M2N! 1+, -=&A 64&A4 4-95S A-??5"B: - 45 %855"!$1*+C 5A&= 45 >957&: -J: <A=5 - 45 :A45?5: -7 98"B5= <"B -97-=D! 1*M ?;&:-": 4-;<"&:4$ &"' -"B-"!f 1*3 BC-A< 5: 6<9 6& 4 ;<&"f 1*3f 1*N <9 '45<B5B J -97-=D 7-9 4&: ;C59 =&9-6f 1.+ &: <":659 -' -"' 859<8f 1F,$ -"":;&9<A -7 98"B5= <"B -97-=D <><&": 4&?f 11* =<"' -B5: 9-'4&?f 11, 5;$s9< - -97-=D 79-? 4- <4-=&A=-9B:!!113 &< W85:&-8: - J- :8J?& 5B - 45 %855"' -7 A-:f 1MF 8:;5A : -97-=D! 12N &: <BC&A5 <: - -97-=D! 13M &: "-5: -' 4- B&77&A8= &5: 95:;5A &"> 45 %855"' -7 A-:f 1N*! &: ;<;59:f 1NF L<?&"<&-"' -7 =&5 <4-=&A A-":;&9< -9:f 1N1 9<6:8; =&5 %855"@: ?<"&75: - - 459 :8JR5A :f L M 9<6:"': &": 98A&-":<:E - A-A4 <77<&9:f .N %8<995= 6& 4 98"B5=f 2* &: -;&"&-"' -' 45 ;9-;-:5B 95: -9< &-"' -7 4- %855" -7 A-:f 3* $- 4<:6-9 4 - "5>-&<5 6& 4 459f *+Ff **N =&: C&56 95:;5A &"> <9 69&>4f **2 &: 95C&-EK@ -7 45 :8< &-' -7 =&5 %855"f *.,

C-&&9:' 45' "R-8' ?<99&">-!' *.N' 95< 5B' -9B' 89>4=- !' *33' &:' : ;&5:!' . * . ' &:' ;<;5 9' -8' 45'%855"@:' ?<99&<>5!' .F. ' &:S A-C59:' 45' &B-=7& :5A95 !' .3N$.N1' -"S : ;&9<A ' -' ?89B59' 4& ?!' F*+!F*. ' 5"B:' 45' A-": ;&9< -9:' -' =&5' -659!' 3*F' "7-9?<S &-'" :5" ' -' 4& ?' J ' -"5 -7' 45?!' F*F' 5S A-?5:' B<">59-8:= '&==!' F+. ' &:'=5 59' -' -=&>" !' F32' &:' -;&"&-'" -7' 45' ' <9S 4-=- ?56' ?<: :<A95!' 1*N' &:' ;9-;-:<=:' -' B5' 8<9<:!' 1.N' P9>5:' 45'%855"' -' &"S 597595' &'" A- =<"B!' 113' &:'956<9B:'7-9' 4&:' ;8J=&A' :59C&A5:!' :& ' 2' &:' <BC&A5'<:' -' 45' 6<9 &'" 45' 5 459=<"B:!' . . ' 9<6 :-8 ' <' ;=<'" -7' 45' :& 8<&-"!' F3' 5?;' -7' (5"B-I<' -' J9&J5' 4& ?!' *+3' &:' B&:$;=5<: &9-' <' 45'%855"@:' A-"B8A !' **+' '" 45' =5"^-'" ?<99&<>5!' *1N!*M,!' *MN' &:' <BC&A5!' -' 45'%855"!' *21' &:' -9B59:' -' 9?-"B' ":' -' 45' 95J5=&-'" &'" 95=<"B!' .*3' &:' A5":895 -7' 45' ">=&:4' 5"&5=&5:!' .M+' <=7' 98: 5B' J ' 45'%855'" &'" A- A4' ?< 59:!' .,F' 8J=&:45:' 45' Q L5A8 &-'" -7' <: &A5!@ F21!F2M' ":'6595B' J ' =5"!' F2M' 8;;-9 :' (5"B-I<@:' B5?<"B:!' FNN' 9<D5@:' ;95:5" ' -' 4& ?!' 1+F' ":'659:' =&I<J5 4' <:' -' 45' =5"^-'" ?<99&<>5!' 1+M' &:' <BS C&A5' -' 459!' 1+3' 5<:-":' 6& 4' 459!' 1F*' >955:' 6& 4' (5"B-I<'-'" B&:;-:<=' -7' 9<D5@:' ;=8"B59' <"B' <' ;<"&:4' <=&<"A5!' 11N' 5<S :-":' 6& 4' 45'%855"' -'" 4&:' <=&<"A5!' 1MM!' 123' &:'95?<9D:'-'" =&I<J5 4@:' ;5W89 ! 12*' =&I<J5 4A-8:8= :4& ?<"B'459' -8"A&#4<9"-AD!' 45'A-":;&9< -9!' <995: 5B!' L&&' .MM 95:;5A &">' 45' :8;;-9 '-7' 45' A- A4' -9B:!' MF1' &:' -;&"&-'" -7' 45'%855"@:' ;-=&A !' M2+' 575"B:' 459:5C59& ' -' 45' < 4-=&A:!' 2*N' &:' : < 5?5" ' 95:;5A &">' "><"B!' L&&' * ' &95A :' 45' ;8J=&A' ;-=&A !' F' &:' =5 59' 95:;5A &">' 45' A=59> !' 2' &:' B5S :;<&9' -7' =&I<J5 4!' . . ' -"B'-7' P"&-'" &'" B575"A5'-7' 459!' 1F' -6'5:&?<5B' J ' (<9 !' M.' 59=5@:' =5 59' -@4&?!' *F*' &:' 5=B5:' :-'" <;-&" 5B' >-C59"-9' -7' 9&=!' *1F' AW8<&" 5B' 6& 4' 4<?;<>" @:' &" 9&>85:!' *M.' 5?-": 9< 5:' 6& 4' =&I<J5 4' <:' -' 95< ?5" ' -7' 45' < 5:!' *,,' "5 -7' 45' A-?? &::&-"59:' 7-9' (<9 @:' 9&<=!' .21!' .3* &:' &" 59C&56' 6& 4' (<9 !' .,3' 5;=&5:' -' ! (<9 @:'B5"&<:!$.32' &:'A-"A59'" &'" (<9 @:' B5< 4!' .3N$F1*' &:>9<A5B' J ' 45'%855"!' FM*' &:E-;&"&-'" -7' =&I<J5 4@:' 95< ?5" ' ,E-7' 45E < 5:!' F31' <?5" :' 459' ;<9S :&?-" !' 1*2' 5' @ -;& <@:' &" 59C&56' 6& 4' 4& ?!' 1*3' 99&C<' -7' 45' 9?<B<!' <"B' :8AA5::5:' -7' -9B' -6<9B' ' -6S <9B!' -9B!' -7' 77&">4<?' &:' B5< 4!' MMM 5=&"&!' 5"C5"8 -!' 4&:' B5:A9&;&-'" -7' 45' ">=&:4!' &' .+' %8- 5B!' .MN 5=&A' A4&57:!' C' 1+N 59A<?;!' A-"7595"A5'<!' C&' ' C&&' ' 9-S 9->85B!

59C&"-!' (<9A-==8:!' 5=5A 5B' -;5!' <:' (<95-=$ =8:' !' C&' F1.' 4<=-"59!' 9<"A&:!' C&&' 2FF' 4<=-"59!' &9' !' &&&' *M2' 4<=-"59!' &9' !' 6<9":'%855'" =&I<J5 4!' C&&' *2+' -&A5 -7' 4& ?!' *2+' ' &:' A-"S C59:<&-":' 6& 4' 45' &:4-;-7' 99<:' <"B' B-' 5&<!' *F3!' *2+!' *2*' &:' =5 59:' -'" 45' : < 5 7' <77<&9:!' *3M' &:' =5 59' -' =&-' ">=&:4' :<&=-&$:!' C&&' 11M' &:' & ?;<&5"A5' < ' 4&:' 95:&B5"A5' < ' (<B9&B!' 12+@ ' &:' &="5:' <"B' B5< 4!' 12*' ' 4<?J59=<&"-!' &9' -8" 9B!' C' .2* 4<?JA9=<&"-5!' &9' 4-?<:!' ">=&:4' <?J<::<&' B-9' <' "&::5=:!' C' F.2!' F11' 5" ' -'" <' :;5A&<=5?J<:: !' -' (<B"B!' C&&' *N*' ?S ;9&:-"5B'&'" 45' -659!' FN3' &:' 6<9"&">' -' =&&=&;' !' C&=&' 112 B5' 4<?;">" !' (!' L&' FN!' M3' &:"5>-&<S &-":' 6& 4' =&I<J5 4!' L&&' *M.$*M2!' *2M' 4<?;59"-6"5!' 9 489!$C'" *12!*13' &:' =5 59' -' 5A&=!' &L' F22' 4<95'&'" =&-' 89& -7' ::5L@:' :5 =5?5" '&"$ P=: 59!' L' MFF' 4<?;59"-6"5!' 5"9 r' &L' F2,' 4<"5 !' (<89&A5!' <' 4<9 594-8:5 ?-"D!' && F21$F2,!' 3,+!' F,M$F3.' 4<" &&5:!' &C' 133' 4<;;5=5!' 95"A4' <B?&9<=!' C&' ..2 4<;;" :!' -'" 9-?65=!' W8- 5B!' &&' **F' 4<;;8 :!' 45' ?;59&<=<?J<::<B-9!' &C' 11M!' 112 4<9&">' 9-::!2>4' <!' $Q&' *,N 4<9=5:' #' :8;;-9:' <459&"5 -7' L9<>-"!' &' *12' <"B' 5:?-"B!' *M,!*2+!*2M' 9-6"5B' .M,' (&:59' A<8:5B' J ' 4&?' &'" <= !' .M3' &:' B8J&-8:<=5>&<"A5' -' =&-' <;<A !' .2+!' .2F!' F31!' F3,' &:'=5 59' -'" ""5' -=5 "!' FNM!' 1+N' (55:' 4a' -;5!' 1*+' &:' &"S 9&>85:' 6& 4' 9<PA5!' 1.,' ":'659:' 5"9 ' #&" !' 1,' BC&::5a'%855'" <459&"5!' 1,F' =<":' 7-9' 459!' && .+F' 5"B:' -' 5:?-"B!' .N1' &:' <"L&5 ' <J-8 ' <8= !' FMF' &:' -7759:' -' 9<"A-!' FMF' &:' :8AA5::5:' &'" 79&A<!' &&& F' 5' -7759:' (&=<'" -' 9<"A5!' 2!' *+' 5"-8"A5:' 9<"A&:' !' *1' "C<B5:' 9-C5"A5!' *,!*3!' .2N!' .,+' &:' ;9-75::&-":' -' 5"9 '# !'!.,*' &:' 95<S A459 !' .,N!' .3+!' F+M!' F+3' &:' &" 5" &-":' <<&":' ">=<"B!' F1M' &:' 7=55 !' F13!' FM1' &:=&D5:' "5' -7' =5C5:@ ?<99&<>5!' 1MF' #&:R : <9&:!' 1M1!12.' &:' &" 59C&56' 6& 4' k <!12+' &:'W8<995=6& 4' 5"9 '# ' 5"B:!$M+2' '" ""5' -7' =-C5:@ B&C-9A5!' 2.*$ '" 45' (&=<'" B&77&A8= !&C' **.' &:' ?&:7-9 8"5:' &'" 79&A<!' *M,' &:' ;-:&-'" &'" ' *M1.!' *2*$*N3' &:' 95< ' 6& 4' 5"9 !' .M3!' .2F' &:' &" 59C&56' 6& 4' 45' -;5!' !.,+' 8>:J89>!' .,' ' ;&95:!' -9?:' 895"!' .3* 5C&56:

45 ">=&:4 < <"B9&A .31 .32 {33 (<D5:<BC<"A5: - 45 8 459<": F++!F.N 5A->"&:5: 45 -"75::&-'" -7 8>:J89>! FFM! FF,! FFN 5:&5>5: &I&-9! F1F$ F1N! FM* 5 9A< :! FMM &>": 45 ;5<A5 -7! 95; ! FM2 ! &: 95?<9D:-"! FM3$F2. &: ;9-75::&-;: - 9 - -"! F, . ! 5$ A5&C5: <9B&"59 <"B -9B 59 7-9B! F, ,$ F,N! F31 &:!A-995:;-"B5"A5 6& 4 -=5 <"B 45 A- :! 1+. &: B&:;8 5: 6& 4 5"9 # ! -'" 45 <995: -7! =5?&">:! 1+FF$ & 4 <>5 ! 1+3$1**! ! 45 &5 -7 -9?:! 1*2 = 59:4&: -"5 - 5"9 # ! 113! 1MF! 12F '" 45 -8"A&- -7 95" ! C 9=2 &7759:! 6& 4 45 -;5! 3N! .*3 5>- &< 5:6& 4 ">=<"B! .*N &:45: - ?<D5 45 5?;&95 4595B& <9 ! .N, B&A <><&": 45 9- 5: <" :! .N,! F++ " 59S 7595:<J-8 45 9&"A5:: (<9 ! F.,! FF+ 8>:J89>! FF, & 4 9 - -"! F1. -5: - ":498AD! 1+F &: ;-=&A - (<89&A5! 1+M : "5<9= A<; 895B! 1+3 1+N! !1MM 5:A9&;&-'" -7 4&&'" J (-99 $:-"! 1M, 45 :&5>5 -7 (5 I! 13. &D5= - B&5! 13F " 59C&56 6& 4 (-9$ 9 :-'" <"B 8B=5 ! 131 < A45: -9 4S 8?J59=<"B! 13, 5: &"5:(<9 7-9 4&=&;! 2*F BC&:5:?-B59<&-'" - (<9 ! C&! 1+! 1*! 1M! 1, &95A : 5"<9B! N* 5"B:<B9<7 -7 45 ?<99&<>5! *FM!*FN!*M. BC&:5: 45 B5< 4 -7 =&I<J5 4 <"B -89 5"< ! *N* 5":&-": 45 ">=&:4! *NF AA-8" -7 4&?&'" *MM1! .F3 575< : 45 95"A4 < <?89! .1* & 4 -=5! .21! .22!! &:& " 5"B5B<JB&A<&-"! F2F &5:! 2.* &: A4<9<5 -9 <"B 4< 95B -7 4595: ! &L FH*F &:=<:'&"R8"A&-": -4&:-'" 4&=&;! F*F*F! F*1

4<9=5: !! &">-7 9<"A5:! :8AA55B: - 45 49-"5! C&/ F++ 45 :&5>5 -7 -85"! 1.M &:=5 59 -%855'" =&I<J5! 4! M+N! M*+ 45 :5"B: 4&? 45 <9 59! C&&& 23 9-;-:< -?<& R 4&? - =&I<J5 4! **1! *.+!*.*! *21! *2M &9 4-?<: ?& 4&:5: B5:A9&;&-'" -7 4&?! *.M ><&"' -77595B -=&I<J5 4! &L *,2 &: ?<99&<>5! L *FM o "C& 5: ">=<"B -R-&'" 4&?'<><&": ;<&"! .F2 5>-&<&-":7-9< 95< 6& 4 ">=<"B! FM.$FM2 -"A=8:&-"= -7 45 95< ! FM2 7759: -R-&'" =&I<J5 4 &'" < 6<9 6& 4 ;<&"! F3* &: 98: -7 =&I<S J5 4 < = - 95"A4 A-89 ! F3F! F31 ==&:=&J59< ;-=&A 'B5"-8"A5B J 45 A=59> ! !FNF : A4<9<A 59! FN, "7=85"A5 -7 -=&>" ! FN, &:&"B&>"<&-'" < 4;< S 5?;-'" -=&>" :=&75! FNN &: 599-9: 6-9D5B 8;-'" J 4&: ?- 459! A5"5 &'" 4&:A=-:5 ! 1+.$ 45 ?<::<A95 -7 <9 4-=-?56?1+F &:?&:59<J=5B5< 4! 111 4<9=5:! 45 9A4B8D5! ;9-;-:5B <:b 48:S J<"B 7-9 %855'" =I<J5 4! !C&&& *.1!*.M' C&&& ,F 45 >&C5:4-;5:-7 ?<99 &">4&?! C&& *1.$*11 "&B 5B - ">=<"B! *11! *NN -8" 5=75: - "@:?&::&-'" - ">S =<"B -'" 45 :8JR5A ! *NN! .+* "L&5 '&'" ">=<"B7-9 45 ?<99&<>5! .+* 9-R9-:AB 7-9 45 %855'" -7 A- :! 1N3 A78:<=-7 4&:7< 459 -=5 4&?J- 9&7=5B 6& 4 <><&"! C&&& ,F ! 5< 4 -7 4&:7< 459! N1 -"S &"85: =&5 %855"@: :8& -9! N1! *22! *2,! *N,! .31 &L *,1 &: :&;8=<&-":! *,3 5A=&"5: -A-?5 - ">=<"B! *3, H9 594-&:-!5 45!&L F.1 (-"D:-7!&&F2F 45&9 =&C5: <"B ?&9<A=5:! F22 95 -'" %855'" < 459&"5@: :&B5! F22 <D5 4- -<4 -7 <=5>&<"A5! F23 95;<95 7-9 B5< 4! F,* 5" - 45 -659! F,2 45&9 5L5A8&-"! F,3! F3+ 985= 95< ?5" -7 45 :89C&C-9:! F3*! F3. =&<9 59&: "B956! &C 21 ! 4<9 =5 (<"-9! %855'" -7 A- :<! L&& .*2 4<9 95:! #&B<?5 -7! A-?5:LC& 4 -7759:79-? 45 8>85"-:!=#&&1.* :A<;5:79-?4- <9 4-=-?56;?<::<A95! L 1+M 4<: 5<8"A87! 95"A4<?J<::<B-9! &" 59A5B5: 7-9 <"! L&&' .,F &:&" 59C&56 6& 4 =&I<J5 4! .,1& " 597595: - ;95C5" (<9 @: 9&<=! .N2 AA8:5B -7 A-?;=&A &'" < ;=- $ - <::<::&"<5 =&I<J5 4! F*2 L<?&"5B J57-95 45 -8"A&=! F*3 4D 5=<9 <"B (<& ! %855'" -7 A- :! : -9 -7! C&& 1NF! 1N1 4<5=4 9<8= ! 8D5 -7 99<"! <9=-7 4 &=-"! 95"A4<?J<::<B-9 A& 5&8 !=?! &1FN &&& F12 4Y &=\-"! -=&>" ! <9B&"<= -7 9A4J&:4-; -7 5<8C<&:! 4&: <=C&"&:?! C&&& F.+ 5" - -"B-'" J -"B'! &L FF* 4< -9! 49&:-;459! &&& FF,! 13. 4< :6-9 4! 45 %855'" -7 A- :<! L 2, 45B:5 ! 9! C .NF 45D5! &9 -4"! B6<9B # @: 8 -9! C *FF" C *+!. 1'F1 45D5! (9!! &"! 95=<"B! L& .F1 <==5B:" ?596&AD! .FM 45P5 ! -7 <=<&:! &C .,2 =&5" !C& **M! 45: 59! -=-"5=! L& *2 45C<=&59! -:5;4! &C FN1 45 "5! &9 4-?=<:! &&& FM.' C .MM! M+N' C *.1! *2+!*2,K*. ! *NF 45 "5 :! 4-! &C 1.F ! 4&A45: 59! <5-7 45 B&-A5:5 -7!&'" *M2N! &L 2+2 !H! 4&A45: 59! &:4-;-7 <?;:-'" 4&A45: 59! &9 - &"!$C& *12 *13! 1FM '" 45 :8J:&B &'" *MMN! C&&& 33 4&A45: 59:! 45! &C 1.F 5 =5 &'" 95=<"B! 133! E 4&:4-=?! &=&<?! &:4-;-7 8"J=<"5! :5&& H - <9&:! &L ,3 ! P"B59 <D5:-'D&=-(<& S =<"B! M.,

=&-

4-=?=A 9A9<<9D<J=-; ;9-;45A -7f C .3+
4-=& -"B5=- f &9 &&AJ&&9Bf :8:;5A 5Bf C=&& 7&
=?=?-"B=5REf &9 ->59f &C *M+
49&: =&89A4f 7-8"B5B J -=:5 f && 1M
49&: : -:;& <= 7-8"B5Bf C F+2
49&: &<" 95=&>&-"f &L F+*f F+.f :< ;9&"S A&;=5 <"B <:" :;AA8=" &C-: : 5?f F+=
=&9&: &""" f &">-7 5" ?<9Df C 1+M C&
2+f .1
49&: &"< -7 5" ?<9Df -6<>59 8A45::-7
(&=<"f ;9-R :<= - ?<99 459 -" 5"9
f &&& .,M$.,N <&=895 -7 45 "5>-$
(&&-":f . +
49&:=-;=&59:-"f (<: 59-7 9&"& <"B &:4-:-7 4&A45: 59f 9& 122 &:" :59?-" <"B B5< 4f C&& *3
489A4f 45f C&:& -9:-7 4-f C M2 < 9-"8>-7f <J8:5Bf .,*" 5>=5A 5B :59C&A5:f .,. 9-7<"5B J8&=B&">:-7f 11, =< 5f \A f -7f 9-JJ5Bf 1MN <"B:-7 45f C& .1, 5J< 5 -" 4-f &" 45 -8:5-7 -9B:f .N, 45 <95 :5A895B -" =< -6"59:f F+1 8=- 7 -;5 <8= #-"f FN* 5C&:&-" -7 45 9< 59 --Df C&& .2f ,N$3* 45-9 -7 4- 489A4f -7 ">=<"Bf ,N &:-9B59:&" 4- 489A4f &" *M21f C&&& NF 45 %855"E: B5 59?&"<&-" - 95: -95 -9B59f *F. =-&=
&"W85 -9 :f A-"B& &-" -7 4-f &" *M21f C&&& 23 =<"A<9 f <9= -7f :8J?& : - &B"5 f L& *3, "B - 9?-"Bf ..1
=<"9&AD<9B-f =&&9=-7 89D5
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=<95f ;9-A55B&">: &"f L M*M f M*2 <&B -7 &9 5=4<?& "f L& ..*
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=<9Df -4"f <" L7-9B : 8B5" f && 12 &: B5< 4f 2N
=<L -"f &A4<9Bf :5" 5"A5B <"B ;<9B-"5Bf &L M22
=-&:J f : -=;4f 4&: 9&<=f &L 22,
=5?5" # f -;5f & *F3 &: B&77&A8=&5: <: - 5"9 #& @: B&C-9A5 *1*f *1F &: &"4&J&&-"f .MM &: 4< 95B -7 45 ?S ;59-9f .23 ;;-:5: 5"9 f .2* "B 4- ?;59-9f .2M #<9"5B J <9=&<?5" f FF3 "" <""< 5:f F2F &:;-=&A f F32f F3, &:R-89"5 - -=->"<f 1*+f 1*.f 1*F f 1*M &=&:&"::&"A59& f 1*, &: A-"S B8A 5L;=<&"5Bf && *.M &:;<::&-"f *F2f *M2 495< 5":- J-&= -""59f *.3 &: <=&<"A5 6& 4 9<"A&: f *M*f *M3 &: A-"B8A 5<"C&::5Bf *MNf .F+ LA-?28"&S A< 5: 5"9 # f ..,f ..3 &: B5< 4 E<"B A4<9<A 59f &.MN && .12f .1,
=5 =59Af <AW85:f -9 &5 B- <=-f 45 ;9&C<S 559f C&&& 1M+
=59> f 45&9 :<=<9&5:8"B59 45 =<" ">A"A :<"B 8B-9:f &1+f 1*f "C5" -9 -7 7&8$$
"& 89- &"" < ;<9:-"<>5 &"" 5" f 1* 5>=5A -7 45&9 B8 -- 45 ;--9f , <S &9-"-"f J - f *+. =< 5 -7f N2f *+. -;9<C& -7f *N,f .++f ..F A -7 AA8S :<&-"" <><&": f .**f ... 5;= -f ..2f .11 &:A&;=&"5 A f .13 8775 9&"" 95S ?8"&95f .+,f .N3f F++ -? # 6&=" -;<9B-"f F+1 5C &">- 7 J- 7&"5 -"f F11f F1, 5"57& -7f FM. J8:5-7=<6 -7 ? 6B-9 <?-">f FMF 45&9 J-=B =<"S >8<>5f F,M &"<== :8J?& f && .+, "" -< 4:f .1Ff .1M 45&9 A-"B8A f F., f FF+ 9B59:-7f 7-9 ;95<A4&">f FF+ 45&9 ;-659:&"" 45 A-"75::&-"<=f FF1 45&9 :8=5"" 5?;59f &&& 2* (<99&<>5 -7f F,2 45&9 B5J< 5 -"" "-7 =-C5:f M*+f 2*1 45 A- A4f &C 1+ -"C5" &-" 8 9-& 6& 4 64&A4f 5AA=5:&<: &A<= A-89 :6595 95><9B5B J 4-=<& f C&& N 775A -7 A=59&A<= <B?&"&: 9<&-"f N 9-;-:<=-7 9 J9&B=&">: 4-A=59> f .* 45&9 <AA5;S <"A5 -7 45 57-9?<&-"f 33 !3N (<99&<>5 -7 45 A=59> >5"59<= B&:<;;9-C5Bf 121 4-B5<":<"B A<"-":<"B 4-&9 6&C5:f 12M 5:& 8 5 A-"B& &-" -7 45 ;<9&:45:f 122 5?;59 -7 4-A-8" 9 A=59> f 12N &77&S A8=&5: -7 45 &:4-;:f 1,+ &:-9B59:&"" 45 489A4f C&&& +F 5 59?&"<&-" -7 45 %855"" -95: -95 -9B59f *F+ &:A&S ;=&"5f *F+ (<99&<>5 -7 4-A=59> f *F+ %8<995= J5 655"" 45 %855"" <"B 45 &:4-;:f *F. 578:<= -7 45 A=59>RE -:8J?& f *FN ?;-7 " &A49&: !& *,* &=-7-9 B&5 ?<99&<>5 -7 45 A=59> f L *NM 45&9 A-"B& &-"" &"" *M31f L&& 1$N
=59Df &:4-;-7 < 4<"B #5=:f &1N
=5C5:f "" - -7 "" - -7 =5C5:
=-C5:f 8D5-7f J&:B&:;=5<:895f &&& 2*, &: <":659f M.+ E5">-&&"A2 -7 4<9=5:#'-" 4&?f &C .3 5< 4 -7 4&: ?-459 45 8A45::f .3 &: :8J?&:&-"f .3F ! =&77-9Bf <9= -7 89<J-9=<"Bf &&& *F+ 9-S 5A : 45 (<::f C&& 12Nf 1,* JR5A : -5 5=5C< &-"" -7 -97-=Df &L 1*. -?5: -8B-"" 6& "5:: 5A&=@: B-6"7<=f 11N 5<B -95J5=f 122 A9<I5B ?<"!@M** =&77-9Bf &9 4-?<:f &&& *33f .+ *f &C F, =&" -"f B6<9B -9Bf A-??<"B: 45 7=55 f #*F* -C59"-9 -7 -8-->"5f .Ff C& *2+ B?&9<= &"" ;=<A5 -7 -6<9Bf M*3 &: 5L;5B& &-" - 9& <" f M.+ 45 9&"A5:: =&I<J5 4 < 4&: 4-8:5f M.1 %8<995=: 6& 4 45 <9= -7 98"B5=f C&& *NM BC&:5: 45 ;9-:5A8&-" -7 45 6<9 &"" A- =<"Bf .F2 BC-A< 5: 6<9 6& 4 ;<&"f &L 1*N (<9A45:<><&": 45 95J5=:f MFM <D5:A-?? <"B-7 45 4<""5= =55 f 2* 5A-?5: <9= -7 &"A-=" <"B>-5: -<&: - 9< &7 45 95< 6& 4 9<"A5f F,3

+&7$ 45 3 * f <9?<f C&&& 1+2

-<=' 9<B5!' C ' .32
-J4<?!' &9' 5"9 !':5" ' -' #&5""<!' L ' *.M' '
<"B' -' (<B9&B!' .+.!' .1*' &:' 95A5; &-"!'
.12' 5" ' <><&"!' L&' .2' &:' &": 9<A$'
&-":!' F*!' 4&=&;@:' <":659' -' 4&?!' F1'
5<C5:' (<B9&B!' F,$' 5" ' -' 98::5=:!' 1*'
&:' &" 59C&56' 6& 4' 5"9 ' ' -"' 45'
=5"^-"' ?<99&<>5!' 1MN' <=:&">4<?@:'
<BC&A5!' -' 4&?!' M*M!' 2*,'
-J4<?!' -9B' ' =BA<: =-!' &9' -4" '
-J4<?!' 5-9>5!' -9B!' C ' .2+" C&' .*!' *M+'
&:' 4-8:5' -6=&">' <: =-!' : -9?5B' J '
/## < ! *MN!' *,1!' *,N!' *3+!' *3N' &:' :-":!'
*3N!' .** ' AA5&C5:' -=5!' .,*'
-J4<?!' &==&<?!' -9B!' 4&:' 95;-9' -7' 45'
;9-A55B&">:' < ' 59A<?;!' C&&' F+' 5"B:'
95<:-"<J=5'=5 59:' -' 45' 7:4-;'-7' -::!'
.**!' .NM' 5" ' -' 45' -6' -8" 9&5:!' L&'
*+3' 5A<==AB!' *11' "5' -7' 45' A-?S
?&::&-"59:' -' 45' && 5:!' L&&' F32!' 1+.'
-J4<?!' 4-?<:!' 4&:' 5L;=-&!' C&&&' 11,'
9&5B'7-9' ;&9<A !' 11N' :A<;5:' =&&:' 7<5!'
11N' 5>:' 4&:' J9-459' "-' -' &"R895' 45'
8D5'-7' -97-=D!' L' .**'
-J4<?:!' 45&9' 9-JJ59 '-7' 45' ;<"&:4' A-&$
9&59!' C&&' FN3
-ADJ89"!' <; <&"!' 4&:' ?&::&-"!' C&&&' .+M'
-77&"!' #' *N3
-&"<>5!' 45' -9B:' -7' 45' -8"A&=' <==-65B'
45' ;9&C&=5>5' -7!' C' .M+' 57-9?5B' J '
%855"' =&I<J5 4!' C&&' 1MF!' 1M1' D5 A4' -7'
45' 4&: -9 ' -7' 45' A-&"&">' : : 5?!' 1M1!'
1MM
-=A45: 59!' JJ-' -7!' &&&' 1.N'
-=5!' 9 489!' -7' (<>B<=5"!' &&' 13'
-=5!' 9!' 9-C-:' -7' -"!' 4&:' :59?-"' C&'
1*N" C&&' ,F' ' 45' 45-=-->&A<=' A-" 9-S
C59: '&"' 5: ?&": 59' JJ5 !' ,F!' ,1'
-=&>" !' B?&9<=' -7' &#<"A5!' B' 13.' C&&'
F+M' 5&I5:' <' 5-"C-' 6& 4' 45' ">=&:4'
<?J<::<B-9!' 49->?-9-"!' 1.F' <D5:'
45' 7&5=B' 6& 4' -"B`!' 1F,' ' 45' J< =5'
-7' 958L!' 11+' <==&5:' 45' 8>85"-'&8$?'
<' <9"<A!' &L' 1F3' (-"5' :5" ' -' 4&?!'
12M' ' *N' 55-&C5B' J ' 45' %855"$'
?-459!' F+F' 5A&=@:' =5 59' -' 4&?!' F32'
&:' ;95;<9<&-":' 7-9' 6<9' 6& 4' =C<!' FNF'
<9"5B' <><&" : ' 95 89"&">' -' <9&:!' FN2'
-8"B5B!' FN3' (8&L=595B!' F32!' 1+1'
-=-""<:!' 45!' C&' 1M2'
-=C&=5!' &9' -4"!' L&' 2FF!' M11!' MMF'
-?? 5"B-"A!' <9B&"<=!' :5" ' J ' 8=&8:'
-' j "B-"!' C&' 3,!' 33!' ***'
-?? 59A5!' ">=&:4!' &"' *M,+!' L ' *+2'
-?? 8"&-"' 59C&A5' &"' 45' 9< 59' --D' -7'
*MMN!' C&&' 3+' &=='7-9' 5"7-9A5B' < 5"B<"A5'
< !' ' *N2!' .F1
-?;<"&5:!' -8B-"' ' 9<B5'
-"B`!' -8&:!' 9&"A5' -7!' &?;9&:-"5B!' C&&'
.N1' 5" 5"A5B' -' B5< 4!' J8' =&J59< 5B!'
F++' <D5:' 45' 7&5=B!' FN.' 4<9<A 59' -7
4&:' :-=B&59:!' FN.' 9->95::' -7' 45' 6<9!'
1*N!' 1.+' 8:45B' J' 8&:5!' 1.+' 1.*'
7759:' <C95'<"B' &5;;5' -' %855"' =&I<S
J5 4!' 1.*' ==&<"A5' J5 655"' =&A?!' 1..'
<" ' -7' :&"A59& ' -"' J-4' :&B5:!' 1.1'
<&=:' -' A-"A=8B5';5<A5!' 1F,!' 1F3' <D5"'
;9&:-"59' <' 45' J< =5' -7' 958L!' 11*'
7759:' -7' 45' %855"$?-4-9' -' 4&?!' M+2'
=&:'=5 59' -' %855"' =&I<J5 4!' M+,' 7759:'
59?:' -' 459' 7-9' 45' 5C<A8<&-"' -7' <C95!'
M+,!M*F' &:45:' -' A-" &"85' 45' 6<9' 6& 4'
">=<"B!' C&&&' 2F' : <J=&:45:' 4&?:5=7<'
-A45=-!' F+,' 5"B:' 4t &==-"' -' -"B-"!'
FF*' &:' 95C59:5:!' FM1' &:' >9-6&">'
5L4<8:&-"!' 1+,' ">=&:4' 9-C59:' 8"B59'
4&:'7=<>!' 1F*!' &==5B'<' <9"<A!' 1F3'
-"B`!' 5"9 !' 9&"A5' -7!' :-"' -7' 45' =<:!'
&"' <9&:!' L ' FNN' <"B:' J ' 45' 6-8"B5B'
B?&9<=!' FNN' -<B ' -' ?<9A4' -"' <9&:!'
L&' - ' &:' <BC&A5' -"' 45' =5"^-"' ?<9S
9&<>5!' *M*
-"B8&'&"' 9<A5A489A4' 955 !' C&' .MF'
-"75B59< 5' -9B:!' A-A=&!' &?;9&:-"' 4-'
%855"' -7' A-:' <' -A4=AC-"!' &L' NN' 4-'
B575"A5!' *++' <459&"5' B-' (5B&A&@:' ?5:S
:<>5' -' 45?!' *+F' !
-"75::&-"' -7' <& 4' -7' 45' A-A4' -7-9?-9:!'
C&&' .,+
-"75::&-"<=!' <J8:5:' -7' 4-!' &&' 11M'
-">`B@`=&95!' &&' .+3'
-">95>< &-"' ' 9-5:<" :!' A-A4'
-"&59:!' -J59 !' 9&5B' J8' ;<9B-"5B!' &L' M22'
-""<8>4!' &9' ' & -"' &"!' L' M+M!' M*M' '
L&' *NM' 5C-=' &"!' *,M' 5:-=< &-"' -7!'
.13
-":5A9< &-"' &==!' C&&&' ++M'
-":&:-9' -89:!' &' *N.' 45&9' 9<"" !'
*NM!' *N2' 45&9' A-998;&-"!' FM.' 4-&9'
5:;&-"<>5!' F,.
-":<J=5!' &9' (<9?<B8=A5!' &&& =' ' C' .*+'
-":<J=5!' &9' -J59 !' &&&' *2N!' *,F!' *3F!'
*N3' 995: 5B!' .+N!' .** ' L5A8 5B!' ..F'
-":<J=5!' &9' -J59 !' <' :;!' &L' M.F!' MF1
?;=- 5B' -' 5" 9<;' 5:?-95=<"B!' M2N'
-":<J=5:' -7' =<?J-9-8>4!' &&&' *M+'
-":8J:<" &<&-"!' B-A 9&"5' -7!' >&$-8"B' -7' <;S
;9-<A4' J5 655"' 8 459<":' <"B' <4-=&A:!
L&&' MMF
-"<9&"&!' &&&' ..,
-"C-A<&-"' -7' <" 59J89 !' :8995"B59' -i' &:'
=5>&:=< &C5' ;-659!' &' F2M!' F22' "' 45'
B&C-9A5!' 11,' 5A&B5:' <><&"':' 45' -;5!'
113' :' ?55&">' <' ' <8=@:!' &&&' 2,'
59?-"' J57-95!' M,' :' A-?;=<&" :' -7'
4595: !' 2.!' 2M' <::5:' 5"9 ' # = @'
<9 &A=5:!' ,1' 45&9' ;5&&-"' 7-9' ;-659'
9578:5B!' C' 22!' 2,$' 45&9' ;9-5:' <><&":'
B-A 9&"<=' A4<">5!' ,+M' 45&9' ;9-A55B&">:'
&"' *M2F!' M+F'
-"C-A<&-"' -7' -9D!' &:' A4<9<A 59!' &&&' +M'
"' ""-' -7' =5C5:!' 2*1

-"C-=8 &-"f =&-s 9&:4!f &C s ,$s
--f 49&: -;459!f &&&s .21s
--D!f =&-& -9 !f &C s 133s
--D5!f &9s " 4-" !f C&& s 1Ff F
-9D!f &9s s 989 s &"!f L&s *NM s =&95< 5"ABs J s 5:?-"B!f .*2 s :A<;5:!f .*Ns
-9"6<==!s A-":;&9<A s &"!f =-9s -9Bs L5 59!f &&&s F..
-9"6<==&:!f &9s 4-?<:!f C s .+,"s C&s =!f *,3!f *N.!f 1N+"s C&& s *, s 995: 5B!f L s ,* s &J59< 5B!f ,M
-9;-9< &-":!f ;9-;59= s -7s 45s 95?<&"&">s 5AS A=5:&<: &A<=!f >&C5"s -s 45s 9-HC8!f C s ,+s
-99&A4&5s 89"!f J< =5s -7!f C&& s 113s
-998; &-"s &"s ">=<"B!f C s .,1 s ": <"A5s -7s & !f C& s F1*
-:J !f <; <&"!f D&==5Bs < s =5" ?<=895!f L& s ..N
- &:7-9B!f 9 !f && s M1
- -"!f <; <&"!f 45s ;&9< 5!f C&&& s 1MM"s L& s F,s
-8"A&=!f 9&C !f &"s *MFN!f &&& s F23s
-8"A&=s -7s 95" !f -;5"5B!f C s *, s -": 59"<S &-"s &"!f *N s 5 95< s -7!f -s -=->"<!f .F!f .*, s 5A-?7 5"A5:!f 1+F s &&s B<">59!f 1+, s "B s &:s ;9-9->85B!f 1+, s 5<::5?J=5:!f C&& s FF+s ;;-:5Bs J s 45s 8>85"- :s <"Bs 45s 9&"A5:s -7s 45s ?<=A<=B&As 5<>85!f FF. s -"B& &-":s 8"B59s 64&A4s ">=<"Bs 6 &==s 95S A->"&:5s & !f FFM
-8"A&=!f 45s ">=&:4!f A-?;=<&" :s -7s -?59:5 s &"!f #s ..,!f F*3 s 5 9< :s -9 =&8?J59=<"B! C& s *N!f .1!f F1 s :A<;5s -7!f -s < "<9B!:s <: =5!f F+!f F1 s %8<995=:s &"!f 2+!f N1 s &==s ;59?& s "-s=5C s -7s 9--;:!f *M1 s 995:-=8 &-"s -7!f < s !< !:s A-":;&9<A !f *,* s 6-s 7<AS &-":s &"!f *N.s 8 J95<D s &"!f ..1 s 5S ?-": 9< 5:s 6& 4s <8=s # !f 1,3!f M*+ s 4<">5:s &"!f -"s =&5s <AA5::&-"s -7s =&I<J5 4! C&& s *,!f *3 s 5 59?&"5s -s ;59:5C595s &"s 45s 6&&9s &"s A-=<"B!f K.F2 s 5<:-":s 95A-?7-"B&">s 45s 99<"s ?<99&<>5!f .N, s ;;-:5s 45s ;9-;-:5Bs &" 59C&56s J5 655"s 45s %855":s -7s ">=<"Bs <"Bs A-=<"B!f 1*+ s 5J< 5s -"s 45s 95A5; &-"s -7s <"8"A&-!f F1+ s 4-s 95A5; &-"s B5A=&"5B!f F1. s A5"5s J5 655"s 5A&=s <"Bs A=5 %8<B9<!f 1F. s 5 59?&"<&-"s -7s =&5s -8"A&=s <:s -s 45s %855"s -7s A-:!f ?<99&<>5!f C&&& s *13 s 45&9s C&56s -7s 45s B<">59:s 79-?s 45s ?<99&<>5!f *+*s 45&9s <BC&A5!f *2F!f .+.!f .+Fs 45&9s ;59;=5L& s <s 45s 95$ A5; &-"s -s J-s >&C5"s -s 45s %855"s -7s A-:!f &L s .F1 s 45&9s B5 59?&"<&-"!f MM, s <A &-":s &"s 45s -8"A&=!f F,M s &:s -7s 45s -8"A&=s &"s 5J s *M2N!f 1*N s #-5s &"s 7<C-89s -7s (<9 s 8<9 !:s :8AA5::&-"!f 1,* s (55 &">s -"s A-A4s <77<&9:!f L s 2. s -9$ R&=AL& s -7s 45s -8"A&=s < s 45s 6<9s &"s 4-s 5 4-9=<"B$:!f L& s 1+s -":&B59s =&5s B5S ?<"B:s -7s =5"^-"!f *M*s 45&9s <BC&A5s -s 4-s %855"!f *M3 s =&I<J5 4

-8"A&=!f 9&:4!f 45&9s B&:<>955?5" :s 6& 4s =&-s <9=s -7s 8::5L!f C&&& s 1Ff 12s
-8"A&=!f A- &:4!f <9"=5 s J57-95s 4-!f C&&& s F++s 9-;-:5s -s J9&">s 45s %855"s -7s A-:s -s 9&<=!f &L s *F3 s 45&9s B&77&A8= &5:s

-8" 9 s >5" =5?5"!f &"A-?5:s <"Bs B8 &5:s -7!f &"s 45s &?5s -7s 45s 8B-9:!f & s 1+!f 12s
-89&`95:!f (s B-!f &C s FFN!f F,*s s C& s .!f *F2 s
-89 5"< !f (<9W8&:s -7s L5 59!f & s **1"s && s M*2 s -5:s ">$&":s 45s -9 459"s 95J5=:!f &&& s *1F s s -9Bs <9A !:s 9&<=!f F.+s -s J5s B5A=<95Bs 45&9s -s 45s 49-"5 &"s -9"6<==!f F.F!f F.1!f F.,s 5" s -s 4-s -659s 6& 4s 4&:s 6&75!f F.3 s :s 9&5Bs <"Bs A-"B5?"5Bs FF*s 5>9<B5Bs R&"Bs 5L5A8 5Bs 3FMs &:s 6&75s ;<9B-"5B!f F32
-89 5"< !f -9B!f :-"s -7s 4-s <J-C5!f -s ?<99 s (<9 !f C& s FN s 5=5<:5B 79-?s 4-s -659!f 12 s -6s 95< 5Bs J s (<9 !f 2*!f N,s 5S : -95Bs &"s J=--B!f **F s &:s ;9-R5A :!f *.,s &:s A-":;&9<A !f *11 s 5" s J<ADs -s 45s -659!f *33 s &5:s <s #5"&A5!f 1M.!f 1MF
-89 5"< !f &9s &==&<?!f C& s 1FM
-89 5"< :!f 45!f &C s 1.3 s 5 =5s &"s 95=<"B!f s 133
-89 5:<":s &"s =C<!:s <9? !f &L s F*3s
-8:&":!f (9:!f && s 1NF !
-8<"5-:!f &:4-;s -7!f <s 5D5:J-8&&"5!f C&&& 2N!f ,+s "s -"B-"!f ,+s
-C59B<=-!f (&=5:!f 4&:s C59:&-"s -7s =&5s &J=5!f &&& s 3+!f 31 s 95<A45:s <s s (<9 !:s = :!f #s *N*!f F*,s 5A-?5:s &:4-;s -7s L5 59!f *N*s "s ;9&:-"!f C& s ...s 5=5<:5B!f F1*s s ?$D59E:s A-":5A9< &-"!f C&& s *,M
-6;59s (8&9!f 95 95< s -7s 4-s 5>5" s 79-?!f C&& s **M
-6=5 !f J9<4<?!f W8-5B!f && s .MN
-6=5 !f <= 59!f C s 1.+s
-L !f 9!f 5<"s -7s 49&:s 489A4!f &C s 133!f 13N s 8-9s -s B6<9B s # !f C s 11M s s 9<"D7-9!f C&& s *+F s &:4-;s -7s = !f &L s F,N s &:s :5A-"B s ?<99&<>5!f F,N s &:s =<"B s >&C5"s -s < -"!f L& s M
9<&>?&==<9s -"B!f)& !f C&&& F1,"s &:s *NN 5: 9-5B!f *NN
9<"5!f C s F,3!f F3*
9<""&<9!f 4-?<:!f &:4-;s -7s -"B-"!f & s .M, s 5" s -s 45s ?;59-9!f .M,!f .2, s &:s J--D -"s 45s B&C-9A5!f .3.!f .33!f 1*3 s 5A-?5:s 9A4J&:4-;s -7s <" 59J89 !f 11,!f 1M* s 8":<J=5!f 1M1 s ::85:s =&5s :5" 5"A5s -7s B&C-9A5!f 1M2 s 9&-:s -s :<C5s (-95!f && s .F,!f .FN s "s A489A4s ;9-59 !f 121!f 1,+s &:s -;&"&-"s -7s ""-s -=5 "!f 131 s &:s =5 59:s <J-8 s 459!f 1NM!f 1N3 s "s 4-?<:s <s 55D5!:s :49&"5!f &&& s F+*s &:s A955B!f F22 s ;;-:5:s 4-s &L s 9 &A=5:!f F3N!f 1+F!f 1M. s (55:s ""5s -7s =5C5:!f 121 s " 5&$A5A=A:s 7-9s 9-?65=!f M+F"s &C s .N* s &:s ?&=& <9 s I5<=!f 1..!f 2+,!f M.$*!f M1, s C s -1

:5=C5: -' 4&?!' H -' 5<B ! -' 95J5=!' 1+2'
&:' ;J?' -' A<99 ' -77' =&5' P8A-8' -7' A- :!'
1,. ' =&:<B:$ 4-' <9=!&-7' 8?J59=&C8B&:'
5"<" :!' M** ' 5 8?<' -' &-"B-"!' <"B'
-J <&":!' 45' 9%&85A"&:' 7<C-89!' 2.*!& &:'
;="":& M..!'23M' ' <&9-9 4!' 0M3N!' 2N+'
-7-< 5B-'" 45' 5=' 9&C59!' 2NF!' 2N1' -&":'
45' 78>& &C5' =-9B:' -" 45' -9B59!' L' ..'
& 4' 4-' 8D5-7' , .' F*2!' F1*' !
8=<J59!' S=&-" !:A4-=<9' -7' =J<"' P<==!'
: -9 '-7!' && E13X 2*' &E ?;9&:-"t&&! 2*' 5$
'A<" :!' ,+' E
<=5!' &==9'#<=5" &"-!:<@A-"&"8::&- -9' -' 45'
8& 5:' -7=&-==&&8B!':&& EF32' ! !
<= -"!' (9:!' 4&:' :;55A=' &'" <9=&<9<- =! &&&
F..' 995: 5B!:F.:' 'E
<= !' -=&59 !' C&&&$ F,F!' F,M
<"J !' &9' 49&: -;459!' &&&' *13' & !
<&&J :&E 45&' &&&' *M+E
<"&5=!' -4"!'=<"B' 45' 8B=5' A-":;&9<A !E C&
1F2!' 1F2!E11M' E
<"&5=!' @59A"5-!e' J-A-?5<' 9A4J&:4-;'-7$ 9S
?<>4!' C&&&' M1!' F,3
<9J :4&95K' < 459!' -'" 4-' 9?<EB<' L&&' 1.M
<9A !' -9B!' -7' 5?;=-489:!' &&&' 3,!' 3F!' &:'
K'B&<?5 59!' *.,' "' -?795' <:=5!' *F1!'
*23!' *,+!' *,1!' *,2X *33" &L' 2*\' ! <D5"'
;9&:-"59!' &&& E *N,'& 5"' -' 45' -659!' .+N'
9&5B!'<"B'7-95 5=:' 9-?65=@:' B5< 4!!.*,'
&:' ;5&&-'" <"B' 5L5A8&-"!' .*N$ & !
<9A " -9B" 4-=B:' -?795!' &L'!2*3$
<& K!E &'" 9 489!' $'M.$' ' k k !
<9&&=5 !' 5"9' 8<9!' -9B!' 4-8>4'-7' ":'
EE 48:J<"B'7-9' 45' $%855&& -7' A- :!' C&=" F.3!'
F2N!' F,+!33,$H3N'" C&&8',,!*+3!0' *+N! &7=&$
'EA8 &5:'&"$ 45'64 !' 3*' J=&=&I<J5 4@:A-89 !'
31!3M!NN' =-65B' -'95 89"' - A- =<"B!' **N!'
.+!E.,*E " 9-B8A5B' -'%&&5-'" (<9 !*.N'
&:'9%5"B:' <"B' <BC&:59:!' &I I&-'<"B' -9B'
E -J59' "<9 !' *.,R!E*.N!' 5 59?&"<&-'"
-7' (<9' -' ?<99 '4&?'$*1M' 59' B5?-'S
:9<&-":'-7'<775A&-"'B"9&L&>4&:'&=":::!'*M+'
95;<9<&-":'7-9' 45' ?<99&<>5!' *M*' ! 959
@E<5B' <9J-7& -::!'*MF!**M1' <"B-=:J@:'
k B5:A9&;&-" -7' J&?!' *22!' *M,' 9B595B' -'
'(95 89"E 8 "><"B!E *,F!' *,3$ &:' 4-9-$
E:A-;5!' *,F' ! 578:5:'E -'95 89"!' *3F
O E (<99&5:E%855" (<9 E<"B';9-A=<&?5B' &">!
*31' &:A-9BEJ5 655"' =&5?!' .F2' &:
OE&EB5?<"B'7-9' 4-$&A9-6'" ?<9&?-"&<=!' .F,!
E O E.1@' 4<9>5:' =&5' %855"' 6& 4' &"7&B5=&!
.1.' -&":' 7E AA :;&9<A' <><&":' &I I&-!
.1F' &:' ;-:& &-"!' .NM' kE (<9 @:' 95< ?5"'
-7' 4&?!' .N2$.N3' &:' 599-9' <"B'7-= !' .N3E
&:'&" 5"B5B' 7=&>4' -' ">><"B!' .NN' 5$'
7-9'E 45' ?&A=E!F++!' &75954A5' J5 655"
'4&?'<"B' 45' %855"!$F1F!' &:' 597-9' J&B'
&="5:!'F1N!' FM+' 899&5B' -' &9D$<$ &5=B!
E'EF23' &:'=<:J"&>4 !e' F2N' &'78"59<=!' &&
!$' N&E0R &:-9 E-7' 45'A-":;&9<A'<><&":'4&?!'
.,'E'E <==<B'-&'4&:'?89B59!' 3F!(*$' 49'<$

5"5B' &"C5:&><&-'" &" -'=8:!$?89B59!' .2,!'
.,2' ';5"&">'-' 45'A-A88&::&-'"<' -9D!'
.F1' "B' <><&"'<'s#5:?&": A9!' FFH'
<9=&"> -"!' &C' .32' $
<C5=!' =-89 !' ?89B595B!' L&' .**' & !!'
<C&:-"!E 5A95<9 H' L&' *+!2!' *+,'!&A$'
A<==AB'79-?' 4-' -6' -8" 9&5 :!!'*11' 5"'
'@<><&"!' 2FF' 5"' -' 4'#-5=& J9BH!21,
' 5" $,'" 5?J<::' -' -=<"B!' L&R' ,' &:'
' 95A5;&-"! J' =&I<JA=&!' *2N' !! 95:5" :'
X 6<&"&"J'7-9' (<9@:' 5L5A8&-"!' F.F!' &:'
!&" 59C&56$6&4' P!<J-&&!' F.F$FE.x2' -&"$
?& 5B'!-' 45' -659!' F1,!'z =&I<J5 4' ;&E-$
0;-:5:' -';9-:5A8 5' J&?!' FM.' &:' R&<H FMF'
' ;&"&-":'-7' 4&:'R8B>5:!'3MF'
<!' &:4-;!' 95: -95B!' C' 2F!',,'
<E 9- -:' -7' -"!e'C& 1,N' &
5=<6<95!' -&B!' C&' 111' E @@
5=C&"!' <9-'" -7" &?;9&:-"5BRR& H.1*!' E =-'
-'=&J59<5'4&?!' .1,'
5"&:-"!' (&=5:!' &&&' 1.,' ' !
5&8"<9D!' &"'>'-7' 4' 49&:&<"'} '
5"" !' &9' " 4-" !' C' .+2'
5"" :!' &9' 4-?<:!' C&' *13' ! !
5" :&E &9' #&=&<?!' 32' !
59J !' <9=!-7' 4' <"=5'
JB5975&' 4&B59"!' ?&9<A"=-8:&?<>5-7!' &8' .N2'
594<?!' 9<"A&:!' &C $*.,'
59&AD!' C&' 11*!$ &:' B5< 4!' 11M
59&">!$ < 459!' &&'*,3' ! !
5E -8=LF' ?;59&<=!>5"59<=!' C' 1M,' ! !
599 !' 7&9:' :5 =5?5"' -!$C R&&' 1+,' -"B&'
k &-8-7' 45'><99&:-"'-7!' 1**!!
'$1*1!' 1*2' E 45':5 =5?5"' ?&"5B!' 1*2'
5:?-"B" <?;:!' <&=!-7!' &'*M,4'&7 {3+' "'
=5<>85' 6& 4' 9<"A&:' "&.F=!' ; ;J5:' -
R&& 4<9=5:' !!'.3.!!' .F1' "B' -!' 45' -;5!'
k*!&&&!' F*F"!' " 3,' 5J5=:!!' N1$
G 95=&>&-8:'4-8:5:!'!&'12*' R! U
5:?-"B!' ! <995=!' <9=!-7!' :8:;5A 5B!!' !C&&&'
K!k*2' %8<995=:'6& 4' 9?-;B!' 22!' 2,'G '132'
578:5:!' -'R-&" ! @ 5&=!' C&&&' 1+F' 5" '<'
k ;9&:-"59-' "B-"!' 13,$ H=-65B' -'95 89"'
' -' 95=<"B!' M1F"' M1N' :A<;5:'B!*L'' 8J=&'"'
' <:=5!' M2N' &:';9-?&:5:64^"'&;' "><"B!'
L&'*',2!$ H8J?&:!<;B&:';<9B-"5B!' *,!' ,3!
R *3,*! <&=5B'-"' J' & I$(<;9&W5'!-'R-&"'
! !4&&"!.+3'! -" &"85:!=- ;=!' .+N!' -J-=:!
@5C'5<' $+H!#0(' 2/&(2'5 C' !&$
%' !,,)/*'#%2)(K 55)')$!$"'-!' @%(^
#+!' '$#,!'%'#+!' $,'(6'555' L)0#%/#"'
)&@%'#%$,)!,#!& +)*N5??' $"'-!$ &%*'
&'!&8)!"' .F, (' #+!' %&!$#'57>'57=' 57='
5C')$ 6!$-')&'(6"&/!,#)!$'57C'57='
)$ $/(K/' (.,'(6'57=' ! /$-$#%$/2S
)#'5CC' &%(6&$"'*-'). (''.')($#2,*'
5C<' B!#&'0!6'(6H),,!6'5C=!' ' ' M
!$*%(6' %/(#!$$%' F' CC=N;' ; !&$ %'
M' >/!'(' ,)1'2!#+' #% 2!&'F)'55' /!$' %&
:)!&+/$2'(6;$ -'&6%(' .M1' X!'9!-'+)*'
5<' N L' ' ;

5: ? - "B! &9 <?5: -7! L& . *+ <==: J<AD 8; - "" &">=5! .*1 L5A8 5B! ..2
5: ? - "B! &9 -4"" -7! L&! .** (89B59: 6 - -7?&A-&E:! .** 5 &9A: - &">=5! .*1 :S A<; 5: 79 - ?' &= ? <==-5D! ..2 -&": -9B <= &">=<: :! ..3 &==5B! .13
5: ? - "B: ! J5A - ?5 -8 =<6 :' &"' 45 7 - 95: ! L .1+
5C5" 59! J5 9< 5B! L& ' F..
5C5958L! (9 ! &C ' 2*F
AC5958L! <= 59! <9 -7 ::5L! L ' M2*' P "S B59 <D5: - -AA8; ' ;<9 ' -7 P=: 59! MM*$22F ' <"B: < ' <99&AD759>8: ! MM2 &: ' 7<&=895 MM, ! MM3 &: ' B&: 95::! M++ &: ' 6&75! L& *M1 ; ; -&" 5B >-C59" -9 -7 P=: 59! *, 2 5B8A5: 45 @ 5&=: <"B 5: ? - "B! *, , ! *3+ =&&: ' A< ? ; <&>"' &"' 45 -9 4! *3F 9B59: 45 ? 89B59: < ' < 4=&"! *31 &: ' B5< 4! *N3! *NN
5C - ": 4&95! &$5J5=&- "' &"! <><&": ' =&5 9< 59 --D! ' *2N! *, +! *3+" C& ' *.3
& - I! 9<"A5: A-! &"' = ? -8 4 4<9J - 89! &L ' F2F
&5; ; 5! -77595B J ' - "B& - =&I<J5 4! C&& 1. * AA8; &5B J ' ">=&: 4 : -=B&59: ! 1FF 5=&"W8&: 45B! 1F2
&5 ' -7 8>: J89>! C ' 33! .N2
&>4 - "! &9 - J59 ! &&& ' *+1
&R - "! J<&=&77 - 7! &C ' F1N
&"<" ! :&5>5 - 7! C& .FN
&">=5! &9 ' -=4&&<& < ! L&! ..F! < <S =&<"' <"B ;<"&: 4 7 - 9A5 < ! .F*
&">=5 ! &9 4 - ?<: ! &C ' MMO! <"B ; ; 5"B&L ' &: A - C59 ! ">=&: 4 C - <>5: - 7! C&&& ' 1.1! -4"" <J - ! 1.1 &==&< ? ' <6D&": ! 1. , ' 5J<: &<"' <J - ! 1. , 79&A<"' B&: A - C59 ! 1.!, &9 -4"' <6D&": ! 1, +! 1, F! 1, 3! 13+" &L ' FM3! F2*" L ' .2+
- JJ: ! &9 &A4<9B! C! FN2
- "5><=! C&& ' 1+,
-9 ? 59! &9 &==&< ? ! C&& ' *F
-9: 5 ! (<9A4& - "5: - ' -7! &&& ' .2*
-9: 5 ! (<9W8&: - 7 ' 4 ' 95 '
-9 45! (! &C ' .22! . , +
-8>4 ! -4"! : <&=: 6& 4 9<D5! L& ' N1! F, 1 L5A8 5B! F, M
-8>=<: ! 9A4&J<=B! L& ' 2*M
-8>=<: ! 5 - 9>5! &L ' *N, $ - " ' 79 - ?' - A= $ =5C5"! .+, ' &: ' 55"E&A5: - '& 59! , +N ' AS A - ? ; <"&5: 459 &"' 459 5: A<; 5! .1. ' 9 - ::5: &" - ' ">=<"B 6& 4 459! .F. ' "' <9&: ! . * ' <; 895B! L& ' M+1
-8>=<::5: ! 45! &C ' .*+ ! FN3
-8>=<: ! 5 - 9>5! < ' 45 ? 89B59 - 7 &II&-! k C&& .M*! .MF ' LA5; 5B 79 - ?' ; <9B - "! F1N
-C&>=<: ! <B ' (<9><95 ! -8" 5: -7 5""-L! "&5A5 -7 5"9 ' # ! & ' **M"' &&! M.N =<99&5: -9B 5""-L! &C ' FN, ' C&& ' F.N AA - 8" ' -7 459! F.N &: 45: - ' ? < ' 459 k :-"' -9B <9"=5 ! - ' (<9 ' 8<9 ! F.3! F.N! F, +! F3, ? ; 9&: - "5B! F33 7&9 =5>& & ? <A ' B - 8J 5B! F33 5 ? <"B: 95=5<: 5! 1*M 59 48: J<"B <==-65B - 95 89"' - A - =<"B! C&&& N1 5"B: 459 R565=: - 4& ?! *+*! *+M > &&"' & ? ; 9&: - "5 J =&I<J5 4! *13 5=5<: 5B! &L ' *N 59 A=<? - 89: < ' 45 ? 89B59 - 7 459 : - "! *N! FN 59 =5 59 - 5A&=! L ' N2 59 4&: - 9 @! L& ', *! , ' 59 B5< 4! *. .
-8>=<: ! &9 &==&< ? ! -7 -A4=5CA"! &L ' .*+! .** ' <">: &B5! . . M ' -=B: - 9 48 ? S J59=<"B ; 9&: - "59! 2M*! 2M. 578: 5: - B5 <&"' 4& ?' =-">59! L ' *. *' =&: ' A - 9$ 95: ; - "B5"A - 7 - 9 =&5 95=5<: 5 -7 -9 = 8 ? $ J - 9=&&"B! F12 &C5: 8; 45 <9= - ">S =<"B! F1N
-C59A - &89 ! ? &9<A8= - 8: 9 - - B - 7! &&' N. ' 89" ! NF
- 6": ! <A &- "' 6& 4 45 =5 ? &">: &"' =&5! &&& .MM
9<D5! 9<"A&: ! 4&: C - R$<>5 6& 4 <6D&": ! &L ' F2N &: 5L; =-& ! L& *1! N*! .+, ! F, *! F, , ! F, 3! F3+$F3, &: A - C59: >-=B <' 9<"A&: A - ! FN1 <&=: 7 - 9 45 5=5JA ! FN1! FNM <: : 5: 49 - 8>4 8"B< 9<& : ! FNM LA - ? ? 8"&A< 5: =5 A459! 4&: A4<; S =<&"! FN2 99&C5: <' = ? - 8 4! FN2 5A5&C5B J E =&I<J5 =& <"B 459 A - 89 ! FN2 5" J<AD - = ? - 8 4 - =<"B 4&: ; =8"$ k B9! FNN "&>4 5B! 1+. &: ; 95: 5" : - %855"' =&I<J5 4! 1+F - &"' " - "&-@: 5L; 5B& &- "! 1..! 1F. & : - & ' <: W8<B$ R - "' <>&": ; <&"! <"B <"A4 - 9: - 7! #&>- ! L&& *1M! *12 <A=&H 45 A& <"B A489A45: ! 1, <; 895: =<>- ! *1N 5AB - 5 - 7 4& ?! *M+ <; 895: <9 4<>5"<! *M+ 4<D5: .&5 A - "7=B5"A - 7 ; <&"! *M* 5 89" : - 04 - ?5! *2* &: L7 4&: W8<B9 - "! F, * <AD: <B&I! F, * <& : 7 - 9 45 9S ? <B< - 8 : &B5 &: J - "! F, F 5"B: 54<=$ =5"> 5 - <" < 98! F, 2 <&=: 7 - 9 - 98"<! F, 2 <D5: <' A<9"AD < 45 I - 95: ! F, 2 5 89": 4 - ?5 F, 2 (<A4&"< &- ": - 7 959! 45 - " 9 - =59! F, 2 9B59: 6&"5 <"B <99 - 69 - - 7 - 9 4&: : &AD :5<&" - "! <"B - 775"B: 45 %855"! 11. &: ; =<"' - :8; ; = 45 "5A5: : & 5: - 7 4&: : 4&; : ! 11F ">< >5: 45 ; <"&: 4 7=55 ! 12+! 1, N! 13+HK 13* 4<: 5: 45 ; <"&: 4 7=55 ! 131 &: =5 59 - <=: &8>=&< ? ! 13, &: <BC&A5 - 45 %855"' "- - 4<I<9B 4 - D&">B - ? ! f N*! & : 95: : - 7 45 ">=&: B& 7=55 ! 1N* 8 ? - 89 - 7 4&: A<; 895! M*3 &: "<? 5 5L5A9< 5B! 4 4 - ; <"&<9B: ! 2*N 9<? <! ">=&: 4! <: 5 7 - 9 45! &' , + (/: 59 =< : ! , + (<: W85 < ' 955"' 6&A4B5: A9&J5B! , F 9< A - 5! &9 4&=&; ! &&& ' *2N 95: : ' J57 - 95 45 57 - 9 ? < &- "! &' *M ' L 9</ C<!><&"A5 - &! C ' **N

"

P

9A"L! J< =5 -7! C&& 1 =! -:8= :' -7! 11.
= 98?J&"&&>! &C .F*
98R$! &9 = 956! <::-A&< 5B 6& 4 <8=- ! L&&
F.M
989 ! &9 &=&<?! C& *3" &L 1. 7759:
-A4<==5">5 - =&65=! 2+ "" - 46A=e:
:5&I895 -7 =&7<9 8<9 ! 2F (*$ 21 &:
<AA-8" -7 459 5:A&;-! .** (*$ (<9:4<=
-7 45 <99< &"" A- =<"B! L 23 AA<==5B
-' 596&AD! 22 89C5 :' 8?J<9 -"! *,M
5" -' B&"J89>4! .,1! .,3 &:' 95A5;S
&-"! .,3 &:' B5J :! .,N B&"J89>4!
F11 45 A-"7A9-"A-=< 45 <: =5! F1M
&:' ;59:-"<= B<">59! F1N 55<==AB! F1N
:D:! 7-9 &": 98A &-":! 12* 9B595B -'
A-"B8A 4-' :&5>5 -7 B&"J89>4! 12M
;;-&" 5B ;95:&B5" -7 (8": 59! L&* *NM
&:' 5 L5A &-"m-7 R8: &A5! *NM! .+*;S
;-&" 5B =-9B R8: &A5! .*. R 9&C5"" &" -'
&=?<==-AD! & 4 =-::! .*M' 5 89":' -'
-9D -' B&5! .*M
8J5=<! (<9=&"! J9-459 -7 45 <J-C5!
W8-5B! &C F+N! 1.M
8B=5 :! 45! &9 1.F " C& *3
8B=5 ! 9 489! 45 &?;-: -9! L& F (*$
8B=5 ! B6<="! C .+N
8B=5 ! &9 -4"! &&& .M1 95< 5B -9B
&:=5! &C .+1! .**! F*2 -?? <"B:' 45
=&A5 ! 1.+! 1.F &:' =5 59 -' 4-' &">!
1F*' E <==5B Q -B&:' -6"" "&>4 !& 12F
9B5:! 12M!2F*' 95< 5B <9=-7 <9S
6&AD! #' *+' "D&-' =58>4! M+' &:'
A4<9<A 59! .+N! .F+! .F3! .M2! .2F" F+.!
F*. &:' B&7 A"=&5:' <J-8' 45 ?;59-9!
FF*! FFM! FMM 8=5:' 45 6-&&:';4<:5 -7
45 57-9?<&-"! FM2$FM3' == 9A8 :' &9
#<"5! F,+' (<B5 8D5 -7 -9 48?S
J59=<"B! F,M' =<":' -' :5&I5 -?59:5!
F,2! F31! FN3' &:'=5 59 -' 9-7 :! 1F+'
E& 4 -4"" "-L! 12M! E1,2' &:' <">59
6& 4 9<"?57! 1,3' &:' A9& &A<=;-:& &-"!
1,N! 13+! 13,! 1N*!! 1NF =- :' <><&":'
(<9 ! 1N3' 59:8<B5:' B6<9B! # ' -' :-'
45! <:&B5! M++' AA8:5B -7 ;-&:-"&">'
B6<9B! 2*.' ;;5<=:' -$ 9<"A5! M*F'
""-8"A5:' -' <B ' <"5 95 ' =?' :45! &:'
%855"! C& N! *M! *N! .*' <?J9&B>5!
.,' 9-A=<&?:' (<9 ' 4595! FM' 995: 5B'
J ' 98"B5=! F2! 12' &:' 9&<=! 21' &:'
B95<B -7 B5< 4' 2,' 9-75::5:' 4&?:5=7 <
<4-=&A! ',+' &:' 5L5A8 &-"<"B! A4<9<A 59!
2N! ,F
8B=5 ! -9B <96&AD! :-"" -7 45 <J-C5! C'
1NM" C& *.' &:' 9&<=! 22 :' 95:;&5B!
,+' -??<"B:' 45 <9? '&"" ;-::5::&-"" -7
<C95! C&& 1.M! 1F2' -&A5 79-?' 45
95"B& -' 5C<A8< -' <C95! M+,' 5:&5>5B!
2**' =&:B& =&A"==&A:! M*1! M*M' 8995"B59:!
2*2' #-8"B5B! 2*,' 9-;-:5B "<48:S
J<"B 7-9 45 %855"" -7 A- :! C&&&,F' 5S
:&95:' ->-' <><&":' 45 "-9 459"" 95J5=:! &L'
2.' (<9A45:' "-9 4! 2F2
8B=5 ! -9B -J59 ! ?<99&5B -' ?' -J$
:<9 ! .N+' C&' *,' C&& 3M' %855"" =&I<S
J5 4 5"8?-895B -7 4&?! 3M' -&A5 -7 4&?!
3M! 32 &:' ;<9 &"" =&5 <77<&9 -7 45 ;9-S
;-:5B 8: 9&<"" ?<99&<>5! *1.' 4<&>5B
6& 4 4<C&">' >&C5"" &": 98A &-":' -' ;-&:-"
4&:' 6&75! *13' -=B:' 45=&: :'<' 955" 6&A4!
*MF' &:'<">59 6& 4 -97-=D! *M3' Q 45
&">' 4<' &:' -' J-I! *3F' 5 %8<B9<:'
A4<9<A 59 -7 4&?! .+M' &:' >9-6&">' ;955
:8?;&-"! M+N' =<5>5B A-":;&9<A ' -'
?89B59 4-'%855"" <"B 4&?! .F,' (-"-;-=
&"" 45 5L;-9 -7 6--=5" A=-4:' >9<" 5B -'
4&?! .,M' "B5<C-89:' -' B5;9&C5 5A&=-7
4&:';<A5! .,3' 5=<&-":' -7 8B=5 '6& =&
4-'%855"! .,3! .3*' 5< 4 -7 4&:' 6&75!
.,2 (*$.,N! .3*! .3,$.N*' <5B J'
45 "-J&=& ! .N+! .N3' &:' ?<&9&<>5 6& =&
45 %855"" ;9-5:5B <><&"":' J' 49->?-9S
-"! .N,' 5A95' <BC<"A5:' ?<B5 J' &9
' &B"5' <"B 4&?:5=7 -' 45 ;<"&:4<?S
J<::<B-9! F+N! F.2! F.,$ P"B59 <D5:' 4<'
"><"B 6&=' :5"B 95;95:5" <&C5:' -' 45
-8"A&=-7 95" ! F.3! FF+! FF*' -"B&S
&-":' 8"B59 64&A4 4&=&;' P' 6&=' A-":5"'
-' 4&:' ?<99&<>5 6& 4 4-'%855"! FF,' E &:'
&?;98B5"' 5L8=<&-"! FF3' &:' 6<59
;<9 -"" 45 4<?5:! F13' &:' A-"C59:<S
&-"" 6& 4 45 %855"" <"B B-'%8<B9<! F1N!
%8<995=:' 6& 4 -9B 98"B5=! F,F' &:'
A-995:;-"B5"A5 6& 4 45 95"A4 <"B ;<"S
&<9B:! F3F! FNM' "" 7<C-89 -7 4-' :8AA5:S
:&-"" -7 -9B 8" &">B-"! 1F+' 9-;-:5B
J' =&I<J5 4 ":' <48:J<"B 7-9 4-'%855""
-7 A-:! 1NN' C&&&,.! ,F! *13' &:' 5"S
?& 6& 4 5A&=! 3M' 9-75::5:' B5C-&-""
-' ;<&"" <"B -?5! 3+' 95< 5B <9=-7
5&A5: 59! NN' 45'%855"@:' -;&"&-"" -7 4&?!
*+F' &:' A-"C59:<&-"" 6& 4 B-' &=C<! *+F!
*+1' &:' W8<995=6& 4 4-' 8D5 -7 -9S
7-=D! *1F (*$ 45 %855"@:' ?<99&<>5
<>K&"! .3M' &L' *,1' 5A-?5:' 89& <"!
*3+' 495< 5"5B J' -9B 8::5L! *3N'
&:' 4< 95B -7 5A&=! 1.+! 1.* (*$ &:'
<A &C& '&"" 4-' -97-=D' ?<99&<>5! 1.2! 1,1!
1,,' 5<B -' 95J5=! 122' "&A&;<5:'
=&I<J5 4@:' 7<=! F,' &:' :5=7$:<A9&7 5-!
*F+! F+F' 95 5"B:' -E6&:4 7-9 45 "R-8
?<99&<>5! F+F! F+1 (*$ P9>5:' 4-'%855""
-' &" 597595 &"" A- =<"B! 113' -C5 :'
<?J5 4 <=<A5! L&' F' -' J5 45 =5<B59
-7 <"" <&&" '7-9 45 5 459=<"B:! 3N! N*!
*.,' <D5:' :4<C5:'&"" 9<D5@:' <BC5" 895!
NF' ==:' B&:<;-&" ?5"' <' 4-' 95:8=' -7
45 <5:@ J8:&"5::! N,! **+! **.! *.M

P

5A95 = ' ?<99&5B' -' 5 &A-' &"-= :!' *MF'
*N3' =&&&9 -:' &"' 9<D5@:' C5" 895!' F2N'
5?; :' -' J9&J5' (5"B-I<!' 1+F' %85:S
&-":' 45'%855"' <:' -' &=5' =5"^-"' ?<99&<>5!'
!112' &:' ;9-;-:&&-"!' 11, ' g=&5' %855"'
W8<995=:' 6& 4' 4&?!' 1M1' ==58:-;:' 6& 4' 459!'
1+M' 5:&>":' 9<J5==<' 8<9'7-9'=&&:':-"!'
M*N!' MM+' "B' &">' <?5:' 7-9' -"5' -7'
4&:' : 5;$B<8>4 59:!' M-+' -?? <"B:' 45'
">=&:4' A-" &">5" !' L&&' *F3!' *11' =&:'
=5 59' -'/ 8=:&">4<?!' *1+!' *1F' =<&"B:'<'
=8:4&">!' *FM$ &:>9<A5B' J' =&I<J5 4!'
* $*$,1' L5A8 5:' 5?<9!' >-C59"-9' -7'
9<C5!' *3N' #9& 5:' -' 45' %855"!' *3N'
9-;-:5:' 74-' 95A-C59' -7' 8 ;=&5"!' *N.'
" 59:' 5=B59=<8B!' *NF' 5 89":' -' ">S
=<"B!' *NM' &:' 95A5;&-"' J' 45' <5:!'
*+,$ &:<: 59:' -7' J&:' <9? !' *22$*2N'
-"7&"5B'&"' 4&:';-:&&-"' <' 45' <5:!' *3*'
=&:' ?<=<B?&"&: 9<&-"' &"' -=<"B!' F23'
=&5' <5:' &"C& 5' 4&:' 95 89"!' F+N' 5"'
J<AD' -@ 45' <5:!' F,N' 9B595B' -'
<J: <&"' 79-?' J-: &=& &5:!' F3*' 5?; :'
45' 95=&57' -7 =8 <!' F3*' 95 A=&5B';=&>4'
-7' 4&:' <9? !' F3F' -??<"B:' 45' ">S
=&:4' <9? !' 1M,' " 5"B5B' &=5 7-9' 4&?!'
1N2' &:' B5< 4'1N2' (89B59'-7' <B'
8B=5 !' 1N,' 45'%855"@:' =-C5'7-9' =&&"&!'
1N,$
8B=5 !' <B' <459&"5!' ?<99&5B' -' -9B'
<:' &">:!' C 1N2
8B=5 !' -&-' 8&=7-9B!' ?<99&5:' <B' <"5'
95 !'C' 1N2' -'J5' &">!' C&' *2' -"S
B5?"5B!' *..
8B=5 !' -9B' ?J9-:5!' C' 12!' *..'
8B=5 'A-":;&9<A !' C&' 1F+!' 1F3*' 11+!' 1M*'
8B=5 !' &9' "B956!' <' 8L5?J89>=&!'IC' 13F'
C&' .N!' 2+!' 23' !
8B=5 !' &9' 5"9 !IH C&' .+!' 1F*' ' &&&' 31'
8?J<9 -"$45=B' 7-9' =&5' %855"' -7' A-:!' &L'
1F,' ' MN' 5:A9&;&-"' -7' &!' *,1' ! K' $
895B' J' %9<67-9B!' *,2' "' B@ 8J&>" @:'
A4<9>5!' .,2' E 45' 5>5" ' (-9 -"' A-"7&"5B'
&"!' .3=E'E' E
8"J<9!' 95"A4' 9--;:' <!' C&&' **M!' ..2'
45&9!':D&9?&:4' 6& 4!' 45' $ ">=&:4!' 4595!'
5 5' E !
8"J=<"5!' &:4-R' -7!' 4&:' < 5?;'-"' 45'=&75'
-7' (<& =<"B!' L&&' *.,'
&&"><""-;& <9-"! 4 ' 5== '
88B95""8"' JJ5 !' &L' ..3'
8"759?=&"5!' JJ- !-7!' 4&:!' ?&::&-"' -' %855"'
=&I<J5 4!' L&' =.=' 59' 95R5A &-"' -7'!4&:'
;9-;-:<:!' *.F' ' & ' ! &
8":' A- 8:!' 7< 5' -7!' <' L7-9B!' &&' 11F'
8"D&9D!' L&' ,1
8""!' 45' A-":;&9<-9!' <995R& 5B!' !L&&' .MM
9&5B'<"B' 5L5A8 5B!' .2M9$.,+' ' !
894<?!' :A5"5 &"' 45' A< 45B9<=$-7!' &L' M*M
&-:' &"!' MN.' U D
89&5!' -4"!' L' 11*' ' L&!' 13N!' M+F

8 -"!' &9' &59:!' &&' 1M+'
59!' &9' B6<9B!' :5" ' -' 45' 5 459=<"B:!'
L&' +F.
?? -AD!' &9' B6<9B!' &&&' *+1'
?-AD' W8- 5B!' &C' 1M1

L !' !' 4&:' =5 59' -' 9-?S
65=!' &&&' .!' F2+
AA=5:&<:&A<=' -89:' 95:-95B!' C&' .NM' -6'
95><9B5B' J' 45' =<& !' C&' N' =&5&9' 5"-9S
?& &5:!' ' ==!' **.' (*$ ' 4 ' -":&:-9'
-89:
AA=5:75A=R<"!' B5:9- 5B!' L' G11'
B>5A-?J5!' <B !' &&&' 1N+'
B>5A-?J5!' &9' &5 &<9B!' -7' - - 5=!' C&' *13'
B?J6>4'5C<A8< 5B' J' =&5' 9- 5:<"!' C&&&'
*.3' <== '-7' 45' 95"A4'79-?' 5& 4' &" -!
*MM' $ 4-' 57-"":-9:' B9&C5"' -8' 79-?!
*M2' 45' <:=5' 45=B' J' 9:D&"-' 7-9' 45'
57-9?59:!' *2F!' *3*' 9- 5A:' 45' %855"'
5>5"!' *N*!' .*F' 9-;-:<=' -':5&I5' 45'
<:=5!' .*.' -"7595"A5' -7' ">=&:4' <"B'
9-"A4' A-?? &:-"59:' <!' .M*' -9<=!'
<4<"!' <"B' J&9<9-!' J89"' &"' 577&>' '<!'
F23' 9-5:<"' 9&-:' <!' F,M' 8 9<>5'
-"' <;9&5:!' C&&&' *1M' LA& 5?5" '<' 45'
?89B59'-7' <9"=5!' &L',!' 3' "B' <' R&-'
A<;895'-7' 45'%855"!' N1!' NM' 45' <:=5'
45=B' J' (<& =<"B' <"B' 9<">5!' .,1!' .jM'
45' <:=&5' -"7595"A5!' F1M' -"7=&A:'
J5 655"' %855"@:' ?5"' <"B' &">@:' ?5"!' F1N'
989@:':&5>5'-7' 45 5:=5!' 12+' 45' <:=5'
:5&I5B' J' &"B:<' <"B' 8 4C-"j' L&' B.+'
<5'-7' 45' A& '&"' (<' *M3+!' .,.!' =&5'
<:=5' &"' B@ 8J&>" @:' A4<9>5!' .,2!'
B&"J89>4!' 95< -7!!' &&' .M3' 578:<=-7'
!45'%855"' -7' A-:' -'9<&7'&!' FM1' 45'
95A->"&&-"' -7' &:'9<&7&A<&-"!' F,F' (&:&-"' -7'
&9' (-6<:<:' ;!' F,2'
B8A<&-"!' ;9->95:':-7!!<?-">! 45' 4&>459'
A=<::5:!!e' 1, ' 4<' J-:' =5<9"' &"' 45'
& &4' A5" 89 !' 1N' "7-9A5B'-"' 45';--9!' M1'
B6<9B' !' 4&:' :8?; 8<9'=<6:!' &' *M' k
B6<9B!' 9&&&A5' -7' <=5:!' J-9"!' &&&' .2*'
95A<8&-"':&"' 4&:' "89:59 !' .22' 9-8>4'
-' 45' -659!' C$1' 7&759:' &&"-!-7' =-C5:'
-!5?-89' -7' 8B5=5!*.N' <99&5B' J'
"&>4!' -' &"B:-9!'.FM' " 59A5B5:' 7-9'
-?59:5!' .F,'& 9-;-:5B' <==&<"A5' 6& 4'
$ 9&"A5::' =&I<J5 4 -7' 9<"A5!' .2.!' FF3!'
FFN' &:'R-89"<=' W8- 5B j' .,.!' .3*!' .3.!'
F1N'!' &:' =5 59' -' 9&"A5:' (<9 !' F2*
! -"7&B5:'&"' <96&AD!' 3,M' &:' A4<9<A 59!'
FN!11+!' <==:')*!' 13*!133!' 1N2' (5B&$E
A<=' < 5"B<" :!' C' 1NM' &:' @ 5C&A5@ X-9'
45' @ 8AA5::&-"!@!M++!' M+*' 5759:$&' -'
45' 8B>5:!' 2+F!' 2+M' 5 59:' < 5" '-7'
x :&>"5B!' 2+,' &:' -" 95< &-;' -' 9<"?59!
' 2*+' :'2!8;;-:AB' -'J5';-&:-"5B!'M*.'" C&

'7&

23 &:' B5" &=! M*M' ("':' :"&B 7-9' 4&?!
22 <: 5 ?&B ;=8"B& ' B89&">' 4&:' ?&S
"-9& ! C&&' M
>=&" -"! -&B!=&&'" 5:A<;5 79-?' <">:&B5! &9
XX;' 9A::A:' 7-9' -=5"& &-"! V' 12 '
>?-"! -8"! C' 131" C&' *F ' ?J<:S
:<B-9' -' ">><"B" *1+' 7759:' -' B`75"B
(<9 ! *2.! *N*' (<&9&5:' 459' J '& 9-L !
N1' AA-?;<"&5:' =&&=&;! .F' 575<:'
95"A4' <' 9<C5=&"5:! 2*3' ' 45' -"$
k 7595&&55' <' "&>5 :! C&&&' 122' ;;-:5:'
;<"&:4' ;-=&A !&:' 3*2' 995: 5B' J ' =C<!
F*N' sAA" 5B! F.+' m
B =J I 87! (<9AR&&&:! E)' *.F' k -??&:S
:&-"5B' <:' =&58 5"<" $>5"59<=' -7' A-=<"B'
<"B' ">><"B! *!M,' <9 :' $6& 4' <' 55'
79-?' &5;;5! *31 E 45'7=55' B5: 9- 5B' J '
<': -9?! *31' AA-?;<"&5:' (<9 ' ";9'
-' A-=<"B! F2*
=5A -9' -7' <L-!' -4"' 95B59&AD! <' L <9'
6& 4' 4<C=A:' #! C' =N' <D5"' ;9&:-"59'
<' (84=J5&>! 1+' &:' <": 65' -"' 45' "S
59&?! N1' &:' ;59:5A8 5B! N2 E 5'7955! 1+3
=5A -9' <=< &"5!C' 1+M '
=&-! 5&A5: 59:' <>5" ! D&' F1F'
=&I<J5 4!' 9&"A5::! J&9 4' -7! &&' *1N' :'
B5A=<&5B' &=5>& &?<5! 2.N" ' M+2' -' J5'
J5 9-45B' -' 45' 8D5'-7' ">-"=5:?-! &&&'
0 FM2' m -' ?<99' -9B' 99<"@:' :-"! C'
..2'@ ' 45=:5<! C' *F*' ' <7&5=B! *FN'
" 59:' -"B-"" 6& 4' (<9 ! $#&' M+' -S
&A5' -7' 459! M.' -A:" -' < 5"B' ?<::!
NM! N2' (<9 ' 6&:45:' E -' :5' 45&! <:&B5!
=.5' 5<C5:' -89 ! *E.N! *M*' 59' "<9$
$ 9-6'5:A<;5! *MM" *,*$ 5"' 7-9E -' -"B-"!
*3F' 59' 5" 9 ! *N+!' *N*' 59' B<">59!
k .+F" 5"' -' 45' -659! .+M' 59' =5 59'
-' (<9 ! .+2! .+N! .*+!E. N' <D5"" -'
--B: -AD! ..2" ..,! .M2! .23! F+.! F.3!
F22' 5A-&C5B' <' <?; -"" -89' J ' -9B'
#&=&<?' -6<9B!$FM,' 59<;;5<9<"A5!
F2N' -5:E -E :49&B>5! F2+' "B' -'
955"6&A4!E F2F' 9<B7-9B:' ?5" &-"! -7'
459" F2,' E 5"'<6<'79-?' 45' -89 ! F& =
5A5&C5d' 45E -8"'B-' 59&<! 2. E 5 59
$79-?' -=5' -' 459! M.,' 59' AA5::&-"" -'
Q 45' 49-"5!/C&&'*' P"<"&?& '-7'<=;<9 &5:'<'
45' A=&<">5! F' E 4&=&;' !5L;5A :':45' 6&=
@ <A'":' 45' B&A<5:! 1' &77&A8 &5:-7' 459';-S
:& &-"! M' ?J<99<::?5" :'-7' 459' 7&"<"A5:!
S ;T! <5'-7';<9 &5:!E3H**! 59' 955B! }.'
59' <BB95:' :' -' 45' ;559:' <' & <7&5=B!E *M'
59' 6-9BH -' 5A&=!@e,' 5;' 9AJ-;&-4'-7'
$&4-' J&:4E B;:' <' &>4>< 5V*,' 9-75::5:' -'
E'4< `$J5A&&&E-C5998-5B! ..'! 59' 9a=&>&-8:'
k #&56:! ..* E 5:-=C5'k-7' 45' -&"A&=! .M
$ %85:&-"E-7'=&'9' ?E<99&<>5" .F$ 4&=&J59'
H-7' <C-'<"B' 4&=&;' ':8>>5:5B! .3' 45
$ A-"75&E5"A'E-7' 59A<?;! .NE 9-;-:<=:E-7'
9&&"5-'7 9<:5A95';5<A5! F.' 4&=&;@:'-7759@
-7'4&:'=& "B' -' =&I<J5 4!' FM" -6':45'95S
A5&C5B' 45'-77-&K! F3' 59' A-9-"<&-"! F3$1+'
;5"&">'-7' <9=&<?5"! 1+' -=B' 65=A-?5'
-7' 45' ;559:' <"B' J&:4-;:! 1+' (55:' 459'
:8JR5A:' &"" "9=&&?58 ! 1+' 45' :;5AA&&
79-?' 45' 49-"5! 1F' AW&&5: AB' J ' J5'
-??-":' -' ?<99 ! 2+' 59' 95;=! 2*'
45' 8;95?<A' &==! MF' 59'7&"<=' <":659'
-' 4&=&;! F, ' ":&:' :"' ;-" 45' 95:-9<S
&-"" -7' <="&:! MN' 8;95?5' <8 4-9& ' &"'
45' 489A4'>&C5"" -' 459! ,.!,2!,' 59' 5LS
;=<"<&-":'-7' 45' B-A 9&"5:'-7' 45' 489A4! *'
9-;-:<=' -7' <"" 8: 9&<"" ?<99&<>5! 31! 3+'
5;-9 5B' -' J5' -"<?-&&9AB' -7' -=E' -J59'
E 8B=5 ! 3M! 32' "' J5' 4<;5=' - <=! NM!
k N2' &E45'=&&">'-7' 65B5'" <':8& -9'7-9' 459'
4<"B! N2' 59' 95W&&&CA?A"P' &"' <48:=&<"B!
N,' 4&=&;@:' 6<9"&">! *++' 9-;-:<=' -'
?<99' 459' -' 45' <&&' -7' 99<"! ** ,! **3!
*.M' 9-?&:5:'-=B -' 45' A-A4' 9-5:<" :!
*.+' 5A5&C-:' D=5 59'-7'9-J8DA'79-?' -4"'
Q "-L'*.2' &:98::' 45' A-:! *.N' 59
Q =5 59' -' 45'%855"" A/58'-7' A-=<"B! *F1'
5"B:' &9' <:;4' <B=59' -' 45' J-9B59:!
*3M' 59' &" 59C&56:' 6& 4' 99<"! *F2!
*F,' &C5:'4-;5:' 4<':45' 6&==' ?<99' =&-
k 9A4B8D5!' *1.$*E11' 59' &" 59C&56' 6& 4'
B-'%"&&B9<-"" 45':8JR5A ! *1F$ "C& 5:B&5'
9A=&B8D5' -' "><"B! *11' E ">59' -7' 45'
9-5:<" :! *1M' "A95<:&">'95?<9D-"'
459'95=<&-":'6& 4 -9B' -J59' 8B=5 ! *1M'
%8<995=:' -7'459' :8& -9:! *1,' 59' &" 59S
C&56' 6& 4' =&5' ;<"&:4' <?J&:<B-9! *13
0 495<5":' 9<"A5! *MF!E*M1' E 59' ;95;<S
9<&-":'7-9' 6<9! *M1' 8J?&:'459';-:& &-&&
-' 45' -8"A&=! *23' "C& 5B' J ' 45' A-A4'
57-9?59:' E -' J5' 45&9' :-C595&>"! *MN'
<9"5B' J ' 4<=-"59! *2+' E ;&"&-":-7'
45' ;<"&:4' ?&"&:59:'<:' -' +B9;9-:;5A :!
2 E #&56:$-7'459' -&"A&=<:' -' 6<9' *21$
/E*2,& 45&9'<BC&A5' -' 45&R! *2,' 59' B5S
59?&"<&-"" -' ;59:5C595! *2N& 5"B:'<
7=55' -' 45' -9 4! *2N' 59' 65=A-?5' -'
K= 475' =5?&:4' 9578>55:! *,+' E 59' 8"A59S
<&" '<:' -' 45' 5?;59'-7' 45' A-:! *,3!
E 5<9' -' ?2C-!E *!,N' 9-?&:5:' 45' 95"A4E
E4-' 2' &" 597595' &"" A-A4E <77<&9:! *3+
' =5::<>5'-7' 45'%855"" 5>5"' -7' A-=<"B'
$ -' 459! *N+d EQ <#&&:E -' ;<&"' 7-9' 45=;! *N '
59' =5 59' -' 4&=&;!E*N. E L 9A&:A:' B<&=
6& 4' 45' 9<&"' J<&&B:!E *NM' 59' A-"C59<<$
&-":' 6& 4! B5' 7&$C95@ Q*N2' 5 =5?5"' -i'
00J45 59?:E-"' 64&A4' :4z 6&=' <=-6'459' 9--;;'
kQ -Q?<9A4' &" -' A-=<"B! *N,$ (<D5:'<
7&E5:4' <=&<"A5' $6& 4 45' A-A4' 9-5:<" :!
*N3'Q 5<9:' -E J5' =5:59 5B' J ' ;<&"! .++ $
L;5A<&-"" 4<' 45' -;5' 6&=' B5A=<95' 459'
k &=5>&&?<5! .+2! .+*" -9' E9&<C<=' ;95;<S
9<&-":! .+*' "B:' 95?<7 "5' &" -' 9& S
<" !$C&&' .+F E " 95< 5B' J ' 4&=&;' **' "-'
-' &" 597595' &"" A-=<"B! ' .+ @ EB&77&A8=
-7' 98: &">' 45' 9--;:@ 7 / 45' "-9 459"

A-8" &5:f .+3 =&5 ;9-:5A8 &-'" -7 45 06<9 <BC&:5B J 45 -8"A&=f .*+ 99& <S &-'" A<8:5B J =&59 8"A59 <&'" ; -=&A f .*M (5"<A5: -7 4&=&;f .*2f .*, ==5988:659 - 45:5 495< :f .*N B <": 659 -7 45 -8"A&=f . .*+ 578:5: -95A<& 459 9--; 79-?: A-=<"Bf . .*+ 59 <">9 95;= - 45 95"A4 <?J<::<B-9f B5 aC95f . . . 9B59: 45 6<9 - J5 ;9-:5A8 5Bf . .F+ B&: 98: 5B J 45 A- :f . .1 59 :-=7$ A-"BB5"A5 <"B &995:-=8 &-"f .FM 59 BA89 :;-"B5"A 8 < 45 "-6: -7 45 7<&=895 < 5& 4f .FM B5 59?&"< &-'" -7 45 ">=&:4 -8"A&= - ;59:5C595f .F2 "- 459 A-"S :;&9<A - ?89B59 459 <"B -9B -J59 B8B=5 f .F, 59 A-"C59:< &-'" $6& 4 B5 %8<B9< <: - 45 95A5; &-'" -7 < <;<= "8"S A&-f .1M$.13 59 B5?<"B:79-?: 45 95"A4f .M2 -"A=8:&-'" -7 45 95< -7 B&"J89>4f .M3 5"B: 7&5:4 -9B59: - 5A&=f .MN 5"59<= #5:"= : -7 45 6<9f .2. 59 A9-6'"<"B&"B5;5"B5"A5 :5A895Bf .2. 59 ?59&: <"B B5?59& :f .2F %8<995-: 6& 4 45 A-"B& &-": -7 45 ;5<A5f .22 "L&5 -7 45 A- 7-9 45 99<'" ?<99&<>5f .2, =&I<J5 4@: <">59 < 45 A- A4 -"75::&-'" -7 <& 4f . ,* 5W85: 5B &'" 7-9?: J 45 A- A4 : < 5: - ?<99 99<"f . , 59 95< ?5" -7 5A&=f . ,Ff . ,1 -5: -'" ;9->95: :f . ,1 (<D5: 8, 459?&"B -?<99 f<"B<><&'" "- f . , , f . ,3 59 95=< &-": 6& 4 -9B -J59 B8B=5 f . ,3f .3* B5< 4 -7 <B 8B=5 f . ,2$.3N 5"59<= 5L;5A < &-'" 4< =&I<J5 4 6&=? <99 B8B=5 f .N+ 59 45:& < &-"f .N* 5"59<= <"L&5 - :55 459 ?<99&5B f .N. -9B 8::5L@: -;&"&-'" <: - 459 ?<99&<>5f .NF =-C59:@ W8<995=f .N1 9- 5: -7 49->?-9 -'" <><&": 459 ?<99&<>5 6& 4 B8B=5 f .N, B5=< :459 <": 659 - 45 A- &:4 -?2&::&-"59:f .NN B5A=&"5: 45 <9= -7 99<"f F+*? ;=-95B J 49->S ?-9 -'" -:5&I5 45 -;-9 8"& -77595B - ">=<"Bf F+Ff F+1 5A95 <BC<"A5: - ;<&'" ?<B5 7-9 45 B8B=5 ?<99&<>5 J &@ &"5 f F+N f =&I<J5 4 <BC&:5B J <>5 - ?<D5 <'" <=&<"A5 6& 4 45 8>85"- =5<B59:f F*2 5"B: < =5 59 - 45 %855'" -7 A- :f F*, =-6: -9B B8B=5 - A-"&"85 4&: "5>-&<&-": 6& 4 45 ;<"&:4 <?J<::<B-9f F.Mf F.2 59 A-"C59:<&-": 6& 4 B5 %8<B9< <: - 459 ?<99&<>5f F., f F1* "C& 5B - 95A5&C5 < "8"A&-?79-?45 -;5f FF+ B?&: < A-?28"& -7 95=&>&-8: &" 595: 6& 4 45 A- A4 9-5: <" :f FF. 5<= : <5 -7 459 ?&"Bf FF. -"B&&-": 8"B59 64&A4 :45 6&=95A->"&:5 45 -8"A&= -7 95" f FFM 59 <": 659 - 45 -9B: <: - 459 ?<9S 9&<>5f F1+ 59&" 59C&56 6& 4 B-%8<B9< <: - 45 95A5; &-'" -7 45 "8"A&-f F1F < 6<5 ;<9 -'" 45 4<?5:f F*3 -9B <?5: 8<9@:=5 59 - 459f &"C& &">459 - 95A->"&:5 45 %855'" -7 A- : <: 459 45&9 ;95:8?; &C5f FM B<">59: - 64&A4 4&: 95A->"& &-'" 6-8=B 5L;-: - 459f C&& FMF 95A<8 &-": <>&": ;-&: -f FMF 578:5: - <=-6 (<9 8<9 - ;<: 49-8>4 ">=<"Bf F22 59=5 59 - 45 A- A4 : < 5:f FM2f FM, -" 9<: 5B 6& 4 (<9 f F2+ P"A59 <&" -7 4- A- A4 9-S 5: <" : <J-8 459f F2 59 <">59 6& 4 <B < 459&"5 95 <"B -9B 59 7-9Bf F, *f F, . 578:5: - B5A=<95 45 %855'" -7 A- : 459 45&9 ;95:8?; &C5f F, F B- %8<S B9<@: A-"C59:< &-'" <J-8 45 B8B=5 ?<9S 9&<>5f F3Ff F31 " 95< 5B J 49->?-9 -'" - 45=; 45 8>85"- :f FNFf FN1 59 <">9 '&" 59C&56 6& 4 B %8<B9<f 1+*f 1+. B5:&95: <'" &" 59C&56 6& 4 %855'" -7 A- :f 1*+ ; ; -:& &-"-7 &9 <A-"f 1** -$:-=C-: - <J<"B-'" 45 ?55 &">f 1*, 77595B <C95 <"B B&5; ; - J 45 8>85"- :f 1.*5 59 45:& < &-'" <"B & :A-":5W85"A5:f 1.*! 1.. -"A=8B5: <'" <=&<"A5 6& 4 -"B`f 1.. <" -7 :&"A59& -'" J-=& :&B5:f 1.1 B5A=<9< &-'" -7 459 -JR5A :f 1., -": ;&S 9<A -7 45 -=-: <><&": 459f 1., f 1.3 <AD5B J :?<=$;-Lf 1.N 5A-C59:f 1F* A&"7-9A5: 45 ">=&:4 &'" <C95f 1F2 59 <": 659 - 45 9&"A5 -7 -"B`f 1F, "S :&: - '" 45 95: -9< &-'" -7 <=<&:f 1F3 59=5 59 - 45 %855'" -7 A- :f 11N (*$ 59 957-9?<&-'" -7 45 A-&"<>5f 1MFf 1M1f 1M2 59 95?<9D: -'" 45 : <5 -7 45 ;<9&:4 A489A45:f 12, 59 8"A59 <&'" A-"B8A <: - 95=&>&-": :59C&A5f 1, * BC&:5B - < 5?; 45 95A-C59 -7 <=<&:f 1,M 59 95: -=8 &-'" <J-8 45 A- &:4 :8AA5::&-"f 1,2 ;5": <9=&<?5" f 1,N B5J<5 @&'" <9=&<?5" -'" 45 :8AA5::&-"f 13*f 13. 59=5 59 - &@ ?& 4 -'" 45 A&C&= 6<9 &'" 9<"A-f 132 5&&-"5B J <9=&<?5" f 13, 59=<": 659f 133 9-;-:5: -9B -J59 B8B=5 - 45 %855'" -7 A- :f 1NN 59`;55A4 - <9=&$<?5" f 2+. (5S "<A&">= < & 8B5 -7 &">= 4&=&;f M+M =&I<J5 4 9578:5: - 5C<A8< 5 <C95f M+3 59 &" 59C&56 6& 4 (B- 9&AW"5?<8 <"B <8=B5 -&L:f M+N!2*+ ><&"95R5A : 45 95"A4 ;9-;-:<:f M*F 8 7&"<= A-": 5" : - :8995"B59 45 -6"f M*2 59 ;9-A=<?<&-'" A-?25"B&"> 45 B575"B59:f M*, -"B&&-": -'" 64&A4 :45 6&=95A->S "&:5 45 %855'" -7 A- :f 2. 45 9&>4 -7 =&I<J5 4 - &" 597595 &'" 45 A- A4 ?<9S 9&<>5f M.N 578:5: &">= 4&=&;@: -7759 -7 ?5B&< &-'" J5 655'" ">=<"B <"B 9<"A5f MF1 ><&'" <BB95::5: 45 %855'" -7 A- :f 2F2 5=< &-": J5 655'" ">=<"B <"B ;<&"f MF3 =&I<J5 4<5?; - 6-9D -'" 45 %855'" -7 A- :f 2FN 4<'" @ 5&=@:

÷ÐP

=5 5ϑ -' 459f C&&& * *3!*N ' ==59 5:< &-'"' < ' 45' =-:-:5:' &'" 9-"5f .2' A&"7-9A5:' 45' <9? ' &'" 95=<"B!' . , ' 5"B:' @ 5&=' <' :<75' A-"B8A f' . , f' F+' &:' <; ;5<9<"A5' J57-95' 459f' F.' =<D5:' <'" <>955?5"' 6& 4' 4&?!f' <"B' <=-6:' 4&?' -' 95 89"!f' F2f' F, ' 575<' -7' 459ϑ 9-- ; :' &'" 95=<"B!' 12' 5ϑ 95: -=8S &-'" "' -' 4< 'A-8" 9 f' 1, ' ? ; -659:' &ϑ ' 8:<D' -' ?<D5' 59?:' 6& 4' @ 5&=f' 13' 5ϑ' &"B&>"< &-'" < ' <'" < 5?; ' -' ; -&:-'" $ @ 5&=f' M+' 5ϑ' 6<ϑ' 6& 4' 9<"A5f' M3!MN ' "B' "5>- &< &-":' 7-ϑ ;5<A5f' 2+$2M' 5"A5' -7' 9- 5:' A-"A=8B5B!' 22' 9&5"B=&"5:' -7' &">' 4&=&;!f' ,*' 5' :5"B:' <'" <?J<::<S B-ϑ -' =&I<J5 4!f' ,*' 5ϑ' < & 8B5' -6<9B:' 45' %855'" -7' A-:!f' ,*' &759:' 45ϑ' -9B' -J59' 8B=5' &'" ?<99&<>5!f' , .f' ,Ff' , , ' &J59< 5:' - 46A=='f' ,2 !' 5ϑ' 95A5; &-'" -7' 45' "56' ;<"&:4' <?J<::<B-9!f' B5' &=C<!f' 31f' 3, ' -5:' -'" ;9->95::!f' N*' ' <?S J9&B>5!f' N*' 775"B5B' J ' 45': 8B5" :!f' N. ' ><&'" ?<D5:' <BC<"A5:' -' 45' 9A4B8D5!f' N1' 5ϑ' &" 59C&56' 6& 4' &ϑ' <?5:' (5=S C&==5!f' N, ' 95< 5:' 8B=5' <9=' -7' 5&A5:S 59!f' NN' 5ϑ' 4&>4' -;&"&-'" -7' 5&A5: 59!f' *+F' 5ϑ' A-"C59:< &-":' 6& =&' B5' &=C<!f' *+F$*+M!f' *.M' 9-; -:5B' ?<99&<>5' J5 655'" 459ϑ' <"B' 45' &">' -7' 9<"A5!f' **1!f' *.* ' ==-6:' <9"=5 ' -'95 89'" -' A- =<"B!f' **N!f' *.+!f' *. , ' 5ϑ' <":65ϑ' -' < 459&"5' B5' (5B&A&f' *.*!*. ' -: ;-"5:' 45':5 =5?5" ' -7' 45' :8AA5::&-"!f' *.N' 5 59?&"5:' -'95S : -95' -9B59'&'" =&5' A=&89A4!f' *F+' ":&: .:-'" 45' -J:59C<"A5' -7' 45' A' -7' P"&7-9?& !f' *F1' 5C&C5:' 45' A595?-"&5:' -7' 45' <9S "&C<=!f' *F2' -5:' -' ' <8=@:' A9-::!f' *F2' 85: @:' :59?-'" J57-95' 459f' *1+' 45' <7S 75A :' < 4-=&A' 8:<>5:!f' *1+' 45' 5&A5: 5ϑ' :A<"B<=:' 95C&C5B!f' *1F' 5ϑ' 5LB 5?5" ' < ' "56:' -7' 45' <9"=5 ' ?<99&<>5!f' *13' 5"B:' 49->?-9 -'" -' A- =<"B!f' *1N' &:' 95; -9 !f' *M1$*M2 ' %85: &-'" -7' 459ϑ -6'" ?<99&<>5' 95C&C5B!f' *21!*2, f' *, *!f' *N, f' .31' 5ϑ' A-"S C59:< &-":' 6& 4' B5' -&L!f' *2M!f' *22' 5ϑ' 5?J<99<::?5" :!f' *2N' 5?<"B:' 45' 5L 9<S B& &-'" -7' 5"" -L' <"B' <9"=5 !f' *, F' "S C& 5:' 45' A-A4' 9-5: <" :' -' 95J5=!f' *, 1!f' *, 3 ' 5"B:' <?6-9 4' -' 45'%855'" -7' A- :! *32' (<9 @:' B5?<"B:!f' *3N' =&I<J5 =&@:' &995: -=8 &-"!f' *3N' J<"B-":' (&898 !f' *NM' 5ϑ ; 9&C< 5'755=&">:' -'" 459ϑ ?<99&<>5!f' *N3' 5ϑ' ?5::<>5' -' 45' A- A4' -9B:!f' .+2' 5BS 7-9B' <"B' (&899< @:' 95?-": 9<"A5!f' .+N!f' .*+' 5A5&C5:' (899< '&'" 7-9?!f' .*1' 5"&5:' 459ϑ 5"A-89<>5?5" ' -7' 45'95J5=&-"!f' .*M' (89S 9< @:' ;9&C< 5' ;9- 5:!f' .*3' 5ϑ' =5 59:' -' 45' %855'" -7' A- :!f' .*N!.1M' 5ϑ' &": 98AS &-":' -' <"B-=;4!f' ..+f' ..*' 9-J<J=5' 8":-W85"-5:' -7' =&5ϑ' A-"B8A!f' ...$..2' 5>&":' -' 95A-C5ϑ' 459:5=7!f' .FFf' .1M' 5S "59<' A4<9<A 5ϑ' -7' 459f' ; -=&A!f' . ,+f' . ,* <D5:' (<9 ' 8<9@:' :&B5f' . ,1' (<& @:' =5 59f' . ,M' 5W8&95B' -' :8995"B5ϑ' =&5 78>&&C5' =-9B:!f' . , , ' 5?-": 9< 5:' 6& 4' (<9 !f' .3.' 5ϑ' 95A5&; ' -7' =&5' "-6:' -7' 45' J&9 4' -7' <?5:' 8<9 f' .33' L7-9B!f' .N* ' 5 89":' -' &"B:-9f' .N1' 9-?&:5:' -' ?<99R!f' F+, ' 5ϑ' A-"C59:< &-":' 6& 4' B-' &=C<' <:' -' 45' :8AA5::&-"!f' F+N' 5"B:' :5;<9< 5=' 7-ϑ' 45' -9B:!f' 3*. ' -?;=<&":' -7' 45' A-"B8A' -7' 5&A5: 59' F*. ' 5ϑ' 95;= ' -' 45' <BB95::!f' F*1' 5ϑ' W8<995=' 6& 4' 45' -??-":!f' F*N' 45&ϑ' 95?-"S : 9<"A5f' F.+' "5' -7' 45&ϑ' ?5?J59:' <9S 95: 5B!f' F.. ' =&I<J5 4' &5=B:' -' 45&ϑ' B5?<"B:!f' F.F' 5ϑ' <":65ϑ' -' 45?' -'" =&5 8J:&B ' &=&==!f' F.M' BC&:5B' J ' B5' &=C<' -' B&::-=C5' <9=&<?5" !f' F.N' 55?:' -' 4<C5' 95:-=C5B' -'" ?<99&<>5!f' FF. ' -9J&B:' 45' B&:A8::&-'" -7' 45' A- &:4' &=5!f' FFF' 9-S ;-:5B' J-"B' J5 655'" 459' <"B' (<9 ' 8<9 !f' FF1' 5ϑ' :;55A4' -' <9=&<?5" !f' FF, ' 5"B:' 5B7-9B' -' <?5:@:' J<; &:?!f' F13' 5"B:' &B"5 ' <:' B5;8 ' -' 95=<"B!f' F3F' %8<995=:' 6& 4' 4&?!f' FNF!f' FNN!f' 1+N' -"S :5" :' -' <' @ <9' 6& 4' @ 5&=!f' FN1!f' 1+. ' 5 5ϑ' 79-?' 45' 8A45::' -7' <9?<!f' 1M, ' LA=8B5:' =5?&">:'79-?' ">=&:4' ;-9 :!f' 1M3' 5ϑ' <":65ϑ' -' 45' 8A=&5::!f' 1M3' 5?; :' -' 95;95::' ;&9<A !f' 12.' 5ϑ' 95A5&; ' -7' 45' "56:' -7' 45' ?89B59' -7' <9"=5 !f' &L' .+' 5ϑ' A-" 5?; ' 5'7-ϑ' <B ' ' 95 !f' .* ' 9& 5:' -9 45' %855'" -7' A- :!f' .Ff' M2f' 2N' :D:' 45ϑ' -'B5=<' ' -=&65==@:' 9&<=!f' 1. ' 5?<"B:' 45' :8995"B5ϑ' -7' <>&:!f' J8 ' 9578:5B!f' 23' 5A=<95:' <><&":' 45' -"75B59< 5' -9B:! *+M' 5ϑ' =5 5ϑ' -' (<9 ' 8<9 ' -'" 459ϑ ?<99&<>5' 6& 4' -46A=='f' *+,f' *+2' 5"B:' 49->?-9 -'" -' 45' -"75B59< 5B' -9B:!f' **+' (<& =<"B@:' -;&"&-'" -7' 459f' *.3' 495< 5":' -' &"C<B5' A- =<"B!f' *F*' 775A' -7' 459ϑ &" 597595"A5' &'" A- A4' <&7<&9:<' =&&:' &?5!f' *11' 5ϑ' :;55A4' -' 5A&=!f' *M+' 5ϑ' B&:;=5<:895' <' 5C5" :' &'" A- =<"B!f' *21' 95< 5:' <'7<A &-'" 7-ϑ' 45' %855'" -7' A- :!f' *22' ! 5ϑ' 9-8J=5:' <"B' C5L< &-":!f' *,+' %85: &-'" -7' 459ϑ ?<99&<>5' <><&"!f' *, F' 45' 9A4B8D5' 4<9=5:!f' *, 1!f' *, M' 5&A5: 59@:' 4-;5:!f' *, 1' =&I<J5 4' :5"B:' -9B' 8::5L' -' #&5"'"<!f' *, M' 8;;-:5B' -' J5&'"5<9"5:!f' *, M' 8::5":&-'" -7' 45' "5>-&< &-":!f' *, 3' 578:<=' -7' 45' 9A4B8D5' -' A-?5' -' ">S =<"B!f' *3, ' "B' -7' 45' "5>-&< &-":!f' *3N' 5ϑ' ;9-;-:<=:' <:' -' A- =<"B!f' *N2' :A<;5' -7' 45' %855'" -7' A-:!f' .*. ' "C& 5B' -' C5=;459f' .*, ' 9-;-:5:' -' ?5B&< 5f' .*F' 575<' -7' (<9 ' <' ' <">:&B5f' ..2' <C5:' 45' =&75' -7' 45' %855'" -7' A-:!f' .F+' 9-S ;-:5:' -' 5" 59 <&'" 459' <:' 459' 9<"D' B5:59C5:!f' .F1' 8 ' A4<">5:' 459ϑ ?&"B!f' .FN' 5"B:' A9-;5' <"B' "-== :' -' <D5' A >A' -7' 459f' .FN' 9-4&J&:'789 459ϑ 4-:&=& &5:!f' .1M!f' 5$

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78:5:' -9B' =5?&"><' ;<:::;-9' -' 9<"A5!' .*+' 55=&"-:' -' :55 (<9 !'.1,!'. +E 59' E 59?:'7-99A&": && &&&> (<9 !'.+2' ": & L& 5:' <"' &"W8&9 ' &" -'k <?=5 @:' ?89B59!' .,2' 59'&": 98A &-":' -' 45 -?7?&::&-"59:!'.3F' 59' C"A&=8 &-'" <><&"!'.N+!'.N2' 55=&">:' < ' 45' J- -?' -7' 459' 489A4' ;-=&A !'F.*' 59' 8 =&59<"' 5"B5"A&5:!'F..' E 59'95A5;S &-'" &"' 45E: 955 :' -7' -"B-"!'F.1' -5:' -' ' =J<"@:!'F.M' E P"5<:' < ' 459'95=<S &-":' 6& 4' ;<&"!'F.2' 8 5=B!'EF.N' 5A5&C7=:' 45E <9B&"<=' -7' 4< &=-"!' FF*' 5<9:' -7' <' ;9-;-:5BE?<99&<>5' J5 655"' (<9 ' 8<9 '<"B' -97-=D!' FF*' 8?7-":' ;559:' -' ' <?;-"' -89!'F3M 59'&"S 59C&56:' $6& 4' 45' &:4-;' -7' -::!'F11!' F1M!*' F1N' BC&:5:' 45' %855"' -7' A-:' -' A-"7&9?' 459'<JB&A<&-"!'F2*' 59'A-"C59:<S &-'" 6& 4' <' (-45' -'" E -=A?&-"!' FM2' 5<&":' 45' ;<"&:4' 95<:895!'F2NE 9-J<S J&=& ' -7' <' 6<9' 6& 4' ;<&"!EF,B' 59' 5LS ;=<"<&-'" -7' 45':5&I895-7' 45' 95<:895!'F,2' 59'&" 59C&56' 6& 4' -9B' 98"B5=!' F3F' 59';59;=5L& E!' F32' =-:5' -7' 45'&"W8&9 ' &" -' 45' <"&=5 ' ?89B59!E F3N' &9' "-== :@ -;&"&-'" -7' 459' A-"B8A !' F3N' 59' =5 59' -' (<9 ' E 8<9 !$ FN. ' 5S :8?`' -7' 459' ;9-A55B&">:!'1+.' E 59H-:&$' &-'" &"' *M2N!' 1+3' 5A&=:' ;-=&A !' 1*+' 59' C<A&==<&-'" <:' -' 45' ;<"&:4' 95<:895!' 1=2!' 1*x ' A5"5' <' 45' ;<=<A5!$1.*. ! ' 77595B' ;5<A5'-9' 6 &9' J ' 9<"A5!' 1F*' 59' <99<">5?5":' 6& 4' (899< ' <:' -E (<9 ' 8<9 !' 1F. ' -9=&99& &C &-'" <><&"::' 5A&=!' 1F,' 5:&95:' -' J5' W8&' -7' 45' %855"' -7' A-:!' 1M+!E 1M. ' E -9?&45:' E -' 95:-95' 459!Q 12+' 59' ?5::<>5' -' (899< !' 12*' 495< 5":' -' ?<99 !' 1,*' -5:' -' &A4S ?-"B!' 1,F' 59' &" 59C&56' $6& 4' -97-=D!' 1,1' -5:' -' <:&">' -8:5!'1,M' E -9J&B:' -97-=D@:' ?<99& $&>5!' 1,,' 5A&=@:' <BC&A5' <:' -' -97-=D!' 13M' 45' :5"B:' -97-=D' -' 45' -659!' 132' 59' 795:4' 8"A59 <&"S &5:' <J-8' 45' %855"' -7' A-:!' 13N' E 59' :89;9&:5' < ' 45' &":8995A &-'" &"' 45' -9 4!' 2.*' <&:5:' <"' <9? 'E2F+' 59' A-"S C59:<&-'" 6& 4' 45' 95"A4' <?J<::<B-9' -'" 45' A-"B&-'" -7' 49&:5"B-?7 21+!E21*' 5?<"B:' 45' 5L 9<B&&-&& -7' 45' 95J5=:!' 2+1!' 223' -9B' 8":B5"@:' -;&"&-'" <:' -' 459' A-"B8A !' 2M,' 59';8"&:4?5"' -7' 45' &":"9>5" :!' 2M3!' M2*' 59' 95< ?5"' -7' 45' <9' -7' 8::5L!' M2+' 59' >9&57' <' 45' "56:' -7' 45' ?89B59' -7' 45' 5>5"' -7' A-=<"B!' 23,' 5"B:' <"B-=;&' J<AD' -' =&"J89>4!' M3N' 59'=5 59' -' -9B' 8":$ B5"!' 2NM' 59' >--B' 7-9 8"5!' L' F' E 59' ?<"&75:' -' -' 45' ;5-;=5' -7' ">=<"B!' 2' 5":5' &'" 64&A4' :45' 6<:' 5<B' -7' 45' 489A4!' 3& 5 59?&"<&-'" -7' 45' -;5' -' 5LA-??8"&A<5' 459!' N!' = !' 22' ' ;<9 ' -7

#

<:::<::&":'5">=><5B' -' ?P9B59' 4A9!E*F' 59' :D5 5E4-7' (<9 ' 8<9 @:' J& : -&R!' *2!*, ' -9' A<8:5:'7-9' 8"5<:&&5::!' *NRE.*' 59' ? 5"$ &;":' -&C<9B:' =&5' %855"'-7 75A-:!'.+' 59' ?5::<>5' -' 45' A- A4' =-9B:!'., ' P" 6&=&">' -':8;;-9' 45' A- A4' 9- 5:<&=:!' F+j b7<& $ k=<"B@:' =5 59' -' 459!' FM' 5?<"B:' -7 45' &"S =& 4>-6E -"C5" &-"!' 1+' $ 5 59' 79-?' E 45' <9' -7 8::5L' -' 459!' 1,'(*$ ' 59' 5?S J<99<::?5"!' M*!' 22' @ 9& 5:E -E 8::5L!' E2*' 4`' -;5@`' 8=' &=5B' -'" !x4-&:4-;' -7' -"B-"@:@ B--9!' MN' E 4B' %855"@:' 5?:59!E *' 5 59?&";5BQ -' 95&":<5' 45' P 3' &4' && cV c) /' %&35*'&3' c1!' $' $' &' .$ 0 2U'0 $"$: $*.' ***' L' 3D& 5'4&$/ $' L' + %**?'$ (* 7' &4' /F' *.*&3' X' $0' %&3($.*&3' 7*/0 / 0 $%3% *" *3' .5&$' 12 0 3K&3' !$&!& 5' 00/&' #: * 5 04&$' 3D& UU 0' +. F &4' / $ k ?6&=&">4B::' -' 5"A-8" 59' <' <9=&<?5" ! *3F' E%85:&-'" 7' 45' :L&AA5::&-'" <><&"! *31!' *3M' 575<' -7' <' -":;&9<A' -' :5&I5' 4-9' ;59:-"!' *3,!' *33& A' 7-9' 45' ;9-5AS &-'" -7' 45' %855"!' *N,' *N3' 59' 8"S >9<A&-8:' 59?&"<&-"E-7' 45':5::&-"!' .+*! 5"B:' &9' -J4<?' -' 4&=&;' E'E. .! .1*" 45' "RBP!E&"<99&<>-'<><&"!' .F$..2! E F+.' 59' &":&"A59& !' k..3!' E. .N' 45' "R && ?<99&<>5'k J9-=A-'" -77' J' 4E5E 8D5!' .F." .FF' ' "C& 5B' -' R-&"' &"A-E=!<><&"::' :<&&&!' .F2' -J4<?@:' 95 89"' 1,!' .13, 0[&*' 44 &'A* 0/ (' / $" $5a$ 5'ULV0 *' W$ $' &' 5*3# $ /' XV' X1 0 &*A 5 0 !&3'B# *.35' X) 001)2 0' 35F' / ! A'&4' '&$4& A' &0 /' 5' $0 c 0k $: $ #,/ $B! $ 0 c) $0.5(* $ 'U2) &7 / ! *# *% *&3' &4' .$$. **? 0&4' 0/ P /' &4' %& ?%$*" U 2' 0 F$'0 3' 07* *3 3 &' &3 $*' !&0 / W A' &4' &$: 4& A?' >F% *&3J U c U12 0 0 * /' /' R 7*$$.*' 4&$' /*' 5 . / # $!* / /*" UU > $"' 5.3 $&4?/ $'!& * *&3 0UU ' B $' .3 7 $' &' / P 30' &4' %& ?*3 $ 0 % *&3 4 40'&$4& A 0 UU) 0 $' .%* .*&3' 0 #' $ %& .35 K UV UVU' / 0 W A' &4' ' &$ / "# $ 35 *(3 0 !' 0 &0 / $ 0 UVc' / 3K&3' .$$*. . .*3 0 U) 0UL) E F2N!' F 3 E E 59' &"B5A&:&-"!' FM1" F N E -"$ R *&3' &4' 0 $. '7*/ $.3% 0UL2' +. .' 4$ /' =.$*."' 3, ' UL1' W ! *&3' 4$&"' 0 / 7' & . &' / P *(&4 %& ' U) U 0 +&3 3 ' &0 % .$ &44 4$& /' / $:8AA5::&-"R F2,!' F23' 5W &5: 5B&J ' 4<9=5:' -'R-&"' 4&?'&"' <6<9<><&":' ;<&"!' F3* 59';9-?&:5:' -' 45' 8D5' 7 =C<@:' A-?S ?&::&-"59!' F3.' &:98: 5B' </ 45' 75"A4' -89!' F31!' FN1!' FNM& 5"B:E?-"5 ' -' 45' E 9&"A5' 7 9<">5!' 1*M' 95;<95:' 7-9' 6<9!' k 1*M$**,E 59' &" 59C&56' 6& 4' 45' 95"A4

<?J<::<B-9f 1*3' 4&=&;@:' =5 59f -' 459!
! 1.M $* 45' 95:--=C5:' -' <AA5;' 45' ;<"&:4f
<BC<"A5:f 1.2' -B?- &59f -' <' 95"A4f
!;9&"A5::f 1F1' (<D5:' < 95< '6& 4f 4&=&;!f
1FNf P&$>-B' J' E 89>=&=5 ' <"B' 5A&=' -'
&" 597595' &"f A-=<"Bf 113' -":5" :' -'
<::&:' &'" 95B8A&">' 4D=&"J89>4f <:=5f 12M'
==-6:' 4^ &<9=' -7' 5:?-"B' -' 95 89"f -'
95=<"Bf M1+' 0 5"B:' 45' <9=' -7' ::5L' -'
P=: 59f MMF' =&59f B&:<;;-&" ?5" ' <' 45'
f'95:8=f M2F' 5C5=--;?5" ' -7 459f A4<?5 59!
E!L&'&' 59f7<C-89& 5:f .' 59f;59:-"<';$
&;5<9<8A-f 1' 59f A-"B8A' -7' 45';8J=&A':59S
C&A5f 1f M'& -9 95=&>&-"!f,' $ 5"B:' ?-"5'
k -=&-' 9&"A5'-7' 9<">5f *Ff -"A5'-77595B
J' &">' 4&=&;f .Ff 9-?&:5:' (5"B-I<
-'95A-":&B59f 459f:5A5::&-'"79-?' 45' 489A4f
.Mf 59f &": 98A&-":' -' -J4<?!' F*
!g49A<-o:' 45' 9&"A5'-7' 9<">5f 32' #9& 5:'
-' 4&?f FNf 59f B5 59?&"<&-'" ":' -' 45'
6<9f&'" 45' 5 459=<"B:f 1*' " 597595:'6& 4f
45'=&J59 ' -7' B5J<5'-7' 4- -9<?-8:f 1.
' 59f 95< ?5"' -7' ' =B5>-"B5f 11' ! 59f
! <">59f 6& 4f 4;' 9&"^5'-7' 9<">5f 1Mf (5$
&7=& <;:' <A4<">5'-7';-=&A f 12f MM' !11 ' 85'
&B$ =A"7-'" <':8& -9!7-9' 459f I4<"Bf 1Nf 2*
' 8;:=&5:' 4&?' 6& 4f ?-"5 V 2*' =8 'B5A=&"5:'
-' B-' ?-95f 2Ff 2+' ;9f B5A&:&-"f 2*f f .7$
E75A:' -7' 459f 6-9Df 2Ff &=' "-':55 95<:-"f
$,1!,M E 59&&5 ;E9 -' 45 4956E:JB&5:f ,M'
59f A-995:;-"B5;;5 6& 4E 45' 5>5"' (-9$
' -"H ,3f 3*f -9=7-<= ?5"' -' 45' J&:4-;:f
3.' E &"A 8<&-":'I&"' 459$;-=&A f 3,' 59f
E 5C-9&&-:' -' 95A8:<" :!" 33' ! 59' =5<>85
0 ' 6B=&j 45$f <5:f +*' <D5:f :4<$95:' &'"
9 9<D5JH "B#;" 89;f NF' ! 95<D:!E459';9-$
R?&:5;-45' <5:f NM' k &C5:' <8B&5"A5'
&-8B-I<f=;&' 59f 495<5f R=+.& 5$'
R !A5&C5:' 45' -8" !!B!W 5 I!' *+1' 578:5:'
R-'95A->"&:5' =&5$L5>-"A' -7' (-9 -"f !*+M'
5;8B&<5:' 459f J-"B:' >&C5"' -' 4 <5:f
!!:& K r &:;=5<:89-' '-7 R 59f!;&&"&:5&$3! *!*+
59f -7759;' ; =5"^-"f *** ' 59f B&:;R5<$E
:895' 6& 4f <:&">4<?& **!.' 59f 9;<$
!'?-"'-7 45 5>A"' (-9 -"f == !f ";9-$
R !>9A::f *.*! 5R5A:' 45' A-A4';9-;-:<=:!E
.!*.F ' #B&R'$ >&C;' "-'9-;"5' -f 45' &&">' -7R
x A-:f *.z f *.1!' ><&'" A4<">5:' 459$;-$
E=H!'*.,f 5A5&C5:' 45' 89>8"B&<'"R
A9-6"$R565=:f 1F+f =-:5:' 459f BR95AJB5<=$*
B&E=>:RC& 4f 45' 5 45"=<"B:f F%f 5:'=<:'
f ?<;?-"&<='<BC5" 895!f *3Ff &5A5&!C5:E
f ?;::5">-9:' 79-?' =5"^-"f !*FF !' " &-:&
GB&&?' -&<& 459R!*F,' *F3 f 55;&5:' <$
'!#=5 59!7-&'" =5"^-"f *1,f ;<;=&">' &<' 45'
9!!^-8" 9'95:;5A &">' 45' 2<&9&<>5"*13!@*1Nf
7!f *M3' &:A;C;9:' 4< 5&A5:59f V"B' & -"E
R''<95! ;A A=!?<99&5B!$*MF!5m*M1!f >955:f -'
/RHjj#=5"^;"@:'C&:&'H-' ">=<"Bf *21$' ! 5& '&"$
' $59C&56f!6& &R4&" f *M1f = M" V 4&=&;' &B$!
GR H; R;;;-:&=&-<E' -'E D5' ?<99&<>5f *MM *

8JJ:E:' ;<?;4=5 f *M2' BC&A5'-7' 45'
-8"A&=f *M3' 59f <">59f 6& 4f 45?f *2+f
2' 59f 9<>5'6& 4f 8JJ:'<"B'4&:';9&" 59f
<"B' ;8J=&:459f *2*' 45' ?<99&<>5' 95<'
:8:;5"B5B7-9f 6-?' 4:f *2F' "B' 45'"
<=-65B =B9-;f *21' 775A:'-7' 459f
5A-"-?'&'" 95<"Bf *,1f ;;-&" :' ::5L'
>-C59"-9f-7'P=: 59f *,M' 59f B&7& A8=&5:'
<:' -' 95=<"Bf *N1' 5"B:' 9?-"B' -;8'
B-6'" 95J5=&-"f .*,' 5<B' -!A-"A5B5'
5C59 4&">f .F.' 578:5:' -' 95<' 45'
9&:4f 6& 4f A985=f .1F' 5 59?&"5:' -' 9'
?&=B59f?5 4-B:' 6& 4f 45' 9&:4f .2*' 59f
<=<9?' <'5C5" :'&'" A-=<"Bf .,* $' 5?;:'
(-9-'" !-'A-??&' 95<:-"f .,2' 5:59:'
=&&?!.,3' 59f-J=&><&-'"*+'<::&: 4&?f .31'
5"B:' ?5'" -45' "-9 4f .3M' 495<5":'
K &">' B<?5:f .3M' 8'B-5:"-4&">f .3,
77-9:'-7'459f -8"A&=-':<C5'459f79-?'459$
':5=7f .3.f &"<= 'B5 59?&"5:"-'-'&" 59S
7595f .N*X =-'-7' 45' 5:8& :'<><&":'459!
' F+.' 59f <:$:<::&"<&-'" :<"A&-"5B'J' 45'
-;5f F+M' 59f -=59<"';-=&A'-6<9B:'
4-' <&8B&A:f Fx*2' '"56'A-":98A&-'"-7'
' 45' -;5i:' 8==f F*M!f F*,' 59f <;;5<=' -'
' 45' ;5-;=5f F*,V =ER&-75' =&59f:;55A4E-
$ =&5'J&:4-;:I$F.F 6j5f' 59f W8<995=6& 4f =&-'
$ -8:5-7' -??-":!FFFf FF1=(5<:895:'
<><&":' <J-=&A$:f FF1,' 59'5L<?&"<&-'"
$-7' <?;&?"& F1+&! 59f 95< ?5"'-7' =&5
0 5:8&:f F2+' 59f 95< ' 6& 4f 8P5"^-'"
'x95C&C5Bf F23'$ <9-"&:5:' 9<D5f F2N'0 -?$
0 ;=<&" $-7' 4&=&;!$F3 ' "C& 5:' (5"B-I<-'
E&< J5<&HJ<&f F3N' 59E A-"C5<:<&-'" $6& 4
4&?f&F3NC 9<D5E:'95 89"f 3N1$FN2' 59f
95A5;&-'" -7' 4&?f FN2' (5"B-I<B5?<"B:'
! 95:-9<&-'" -7' =&5;=8"B59!!' FN,$ 59f 95$
$'78:<:!f FN,' -9<?&::&-"':95?<?5'-'95$
' >&:59f 45'J-- f FNN' 89>4=5':8;;-9:
(5"B-I<@:'B5?<"B!FNN1+,' 45'D"&>=&:'
9<D5f 1+,' 5 59?&"5:'-'95:-95"-4&">H
1+F' 5"56:'$=&5E=5"^-"$ 795< f 1+M'
59f "'5&6&"5::!'1+,'& 8C>4=5@:'<BC&A5f
&1+3' 9-?&:5:'-'?<99f 1*.:' (5"B-I<@:
0 &"A95B8=& f $1*2f (<99&<>5' 95< f 1*3f
1*N' "B5<C-89:'-'5 A<;5f 1.*' <"A$
! &-":' 45'5L;5B&-'" -`9A5&9<f 1.1$1F.
0x 5"B:! "=:E >4"&'" -E <9&:f 1F+' 59f
E B&=5?7<f E1F+ $$ <P&J>=&<&"@:=5 59f 1F+
89>4=5'95"&-":' 6& 4f 459f 1F*$ (&:>&CS
&">:$-7' $ <:&'>4<?f 1FF'E 5"B:' =5"S
^-"$?-"5 f !13M' a9f 95< ?5"' -7' -'"
E " -"&-f 1FN' ("B-I<@' 95?-": 9<"A5:!
' 1FN' E &::5:' =5"^-'" <' 955"6&A4f 1*M' !
95:5" V 4&?' &:' 459f 78 895f 48:J<"B' -' 45'
' -&9R 1!12' ><&"f 45:& <5:' -' ?<99 &1M+'
x -9$ 9<<R"5" E-7 =5"^-'" <' ;<9&">f 1MF'
=5"^-<E'=-C5$=5 59f 1MNC =59"<&C5;9-$
:;55 '-7f 45' ?<99&<>5!f !12+'* 59$&"7=8S
5"A'&'" A-=<"B'>-"5f 12F' &:;-:&&-'"-7'
8?5:7 121f (&::&-'" -7' <;<&'" 99&">$

-"f - - ' 5>- &< &- "-' 6& 4' %855"' -7 A- :f 1,+' =&578 :' 45=;' -' ">8:' <"B' 8 4CA"f M+,f 2+N' (<9 '<; ;5<=:' -' 459f M*F ' 9S 9&C<=' -7 < (- 45' =:` &A=-"f M*M ' &:' &"S 59C&56' 6& 4' 459f <"B' <BC&A5' <:' -' A8: -B ' -7 (<9 f M*2 ' 9- ; -:5B' <==&<"A5' J5 655"' ;9<"A5f ">=<"Bf <"B' (<9 f M*, ' 9<" :' ;59?&::&-"' -' `"5=-"' -' ;9-A55B' -' B&"S J89>4f M.+' 99&C<=' -7 45' :5A-"B' <?J<:S :<B-9f B-' (<&"C&==5f M.+' 5A5&C5:' 5""-L' &"' -"B-"f M.. ' 5A5&C5:' 4&?f M.1 ' -J$ 4<?@:' =5 59' -' 459' -"' 5""-Lf MF. ' <9>4=A :' <"B' <=:&">4<?@:' 95?-"S : 9<"A5:f MFF' -":8= :' 89>4=5 ' <"B' 459' -8"A&=' <:' -' :8 ; ;-9 &">' 45' A- A4' =-9B:f MF1' 5"B:' 5<=5' -' (<9 f MF2' -?S ?&::&-"59:' 79-?' ">8:' <"B' 8 4CA"' :5" ' -' 459f 2FFf M11' -"B& &-":' -"' 64&A4' A- =<"B' 6&=' J5' 459' <== f 212' 5A=&"5:' A- A4' ;9-;-:<=:f MM* ' &=' -' ;<9 ' 6& 4' ?-"5 f 2M. ' 5<=5' <><&"' :5" ' -' (<9 f MMF f M3N' -" &"8< &-"' -7' 95< ' 6& 4' (<9 f MM2f MM+' 89>4=A @:' -;&"&-"' -7' 459' ;-=&A f M2+$ 59' <=<9?f M2M' =<?5:' -99&:f <"B' -9B59:' 4&:' 95A<==f M, .$2,2' &95A -' &">4<?' -' :5&I5' :4&;:' -7' 45' < 5:f M,2f 2*2' 59' "5>- &< &-"' 6& 4' <?5:f MN*' 5"B:' <:&">4<?' -' A- S =<"Bf MN3' -9 '-7' 45' <C<99-' B&<?-"B:f 2+1' 59' :4<9;' ;9<A &A5f 2+M' =- :' -' <: :<::&"< 5' 459f 2+N 3$' \' 5"56:' "5S >- &< &-":' 6& 4' 45' <5:f <"B' :8: ;5"B:' 4-: &=& &5:f 2*2f 2*, ' &77595"A5' -7' -;&"&-"' &"' 45' ">=&:4' -8"A&=f 2*, ' 5C595' ?5<S :895:' <><&": ' 45' 5:8& :' <"B' :5?&"<9 ' ;9&5: :f 2*N' L;8=:&-"' -7' 45' ;<"&:4' <?J<::<B-9f 2.+' #&-=5" ' :A5"5' 6& 4' 45' -8"A&=f 2.1' <99 @:' ;=- f 2., ' A"56 :' "5>- &< &-":' 6& 4' =B5>-"B-' <"B' 9&"A5' -7' 9<">5f 2F*$2FM' <&=:' -' 45=;' 4-' A- A4' =-9B:f 21F' &:?&::5:' -9B' 4956:J89 ' 79-?' A4<9>5' -7' (<9 f<"B':8J: & 8 5:' <B=59' <"B' 5C&==5f 2MM' 5"B:' <B5' -' (<9 ' -' 95-;5"' <' "56' 95< f 22M' 45' 95< ' B9-;;5Bf 22*' 59' A4<9<A 59' J ' 5A&=f L&& ' *' 9-:;59& ' -7' ">=<"B' 8"B59f *$1' 59' -8"A&=f F' 59' A4-&A5' -7' J&:4-;:f 2' 59' ;95 5"B5B' ?-?"&">'7-9' =5"^-"f *F' -?S ;<95B' -' --=-759"5:f *F' 59' B<">59f <"B' ?5<:895:' 7-9' :<75 f *2' 5?;-9&:5:' 6& 4' 9<"A5f *, ' 59' A-"7595"A5' 6& 4' (<8C&::&a95f *, ' 59' &" 9&>85:' < ' 45' A- A4' A-89 f .+' 59:5A8 5:' 4-' "-"A-"S 7-9?&:f .F' 5A5&C5:' 99<"f .,' f 59' 95< ?5"' -7' (<9 f .,' 5=5<:5:' 45' <9=-7' 4956:J89 ' 79-?' 4&:' A4<9>5' -7' (<9 f F. ' =< :'7<:' <"B' =--:5' 6& 4' J- 4' (<9 ' <"B' <?5:f F. ' =- :' <><&":' 459f FMf -"B' -7' P"&-"' &'" B575"A5' -7' 459f 1Ff 23 ' 9< @:' 5?J<:: f 1N' 5>- &< &-":'7-9' 45 95=5<:5' -7' (<9 f M+' <==:' <' "56' <9=&<S ?5" f M, ' =- :' -7' <99 '<"B' 5C&==5f 21$ ' -?;=&?5" :' 45' -8:5f 2N' &:?&::5:' <9=&<?5" f ,+' 59' ;59;=5L& ' <:' -' 4-' 9&;<9 & 5' <==&<"A5f ,* ' 5"B:' 5A95 <9 ' <C&:-"' -' -==<"Bf ,. ' 5"B:' 45' <9 59' -' 5"9 ' f ,1f ,2' 5"9 @:' 5:&?<5-7' 459f ,.f ,, ' <77=5B' &"' 459' ;-=&A f ,3' 5S ?<"B:' 45' <995:' -7' (-9><"f ,3f 3+f 3. ' 59' =5 59' -' <459&"5f ,N (*$ ' 59' -7759:' -' 5"9 f 3*f 3F' 59' <?J<::<B-9' &==$ 95< 5Bf 3. ' 9& 5:' -' 5"9 f 3F'0(*$ ' 5L 8:' #' B95<?:' -7' A-"C59&">' 459f 3M' 95::5B' J' 45' 8>85"-:' -' B5A=<95' 459S :5=7f 3,f 33' 7759:' <' =-<"' -' 5"9 ' -7' <C<99-f 3N' 5 59' -7' (<9 ' -' 459f <"B' 459' 95;= f NFf N1' 5?<"B:' 4-' <995:' -7' 99<"f *+1' 59' &"B5A&:&-"' &"' A- A4' <77&&9:f *+2' 55 B:' - -"f **+' 59' =5 59' -' <?5:f **. ' 59' 95< ?5"' -7' 98"B5=f **M' 59' 95=&>&-8:' -;&"&-"::f *.F' 59' C&56:' 95><9B&">' =8:4&">' <"B' 4-' <5:f *. ' 5A=&"5:' 4-' :-C595&>" ' -7' 45' J&A:f *F1' 95< '7-9' 45' B575"A5' -7' " 659;f *F2' -?? &::&-":' 5&A5: 59' -' A-?? <"B' 45' <9?7-9' -=<"Bf *3N$ *11' 5J8D5:' &9' -99&:f *1*' ;S ;-&" :' >-C59"-9:' 7-9' =8:4&">' <"B' 9&==f *1F' <9<= :5:' 5&A5: 59f *2M' 5:;<A45:' 5"5<>5' -' 45' <5:f *23' 59' 95< ?5"' -7' <C&:-"f *2N' 59' 95:5" ?5" ' -6<9B:' <B ' 5&A5: 59f *,+' &:>9<A5:' 5&A5: 59f *2N$*,1' 5?-": 9<"A5' -7' 5A&=' <"B' <=S :&">4<?f *,, ' <D5:' 9<7&>" ' &" -' 459' A-"7&B5"A5f *,3' -"7&9?:' 5&A5: 59' &"' =&:' -77&A5' <' 45' <5:f *3*$f *N*' 9& 5:' -' <9?<' <"B' 45' <5:f *3*' 5"B:' &=D5:' -' 45' <>85f *N*' 5A<=:' 5&A5: 59f *NM' 59' :8AA5:' &"' 95=<"Bf *N2' -=-"&:5:' 45' A-8" 9 f *NN' A- A4' &"C<:&-"' -7' 95S =<"B' <"Bf B575<f .++$.+F' 59' ;-:&&-"' &"' *M32f .+1' -":5" :' -' <=:&">4<?@:' R=-' -' &" 59A5;' (<9 ' 8<9 @:' A-995:;-"BS 5"A5f .*. ' <J&"> -"@:' A-":;&9<A f ..2' 4-' =5<>85' 6& 4' <?5:' A-?;=5 5Bf .FF' 59' A-"B8A' -' (<9 'R8: &7&5Bf .1, ' &:A=-:895' -7' 45' A-":;&9<A ' <"B' A-":5W85" ' <995:.f .MF!.MM' 59'=5 59' -' <8=5 f <;;9-C"">' -7' 4&:' A-"B8A f .MNf .2+' 59' <>& <&-"' <' 45' B&:A=-:895:' -7' 4-' ;=- f .2. ' 59' 45:&S <&-"f .2F' ::85:' <' A-??&::&-"' -' 9 ' (<9 f .21 .,M' 9&<=' <"B' 5L5A8 &-"' -7' =&-' - 459' A-":;&? -9:f .2M$.,+' 4<: A<8"5"7:' &" 59C&56' 6& 4' 459f .,1' 59' 75<9:' 95S :;5A &">' <?5:f .,2' 9-A55B&">:' -7' 4a' -?? &::&-"59:' -"' (<9 @:' 9&<f .,2' $' \' 9-A55B&">:' &"' <9=&<?5" ' <><&":' ("9 E& .3N' :&?<5' -7' 459' A4<9<A 59' .N*$.NF' 45' %855"@:' &"B5A&:&-"' <:' -' (<9 @:' :5"$ -"A-f .N1' 578:5:' 5=&aC95' <"' 4", 4M7

L&&

.N3' '=-"> =&95^-&C5:' -=&aC9-f' .N3$F+*'
5R5A :' =&&:' ;5 & &-"f F+*f' (<9 ' :5" 5"A5Bf
F+ ' 5A5&CA:' <'" $8=&? < 8?' 79- ?' 5"9 '
P f' F+M' &: ?&: :5:' 5=&a9 5f' F+2' 9-S
;-:5:' A-"B& &-"':' -' <?5:@:' <?J<::<B-9:f
F+2' 9' 95< ?5"' -7' <=:&">=? ?f' F*F$
F*M' 4<: 5<8"5"7:' :8; ;-:5B' ;=- f' F*2'
-9' &" 59C&56' 6& 4' -9B' -6<9B' <"B'
<C&:-"f F.F' &>":' (<9 @:' 6<99<" 'F.F'
=<?5:' <8=A'7-9' 9578:&">' -' D&=:' (<9 f
F.M$F.N' (<9 @:' B5< 4f' FF+$F1*' =&I<S
J5 4@:' 95A5; &-"' -7' 45' "56:f' F1M' -?S
?& :' <C&:-"' -' 45' -659f' F1, ' 5"B:'
&9' ' <95 ' -' <?5:f' F13' -9' =5 59'
-' 4&?' 5LA8:&">' 459:5=7f' F13 (*$ ' 5"B:'
459' B575"A5' -' 9<"A-f' FM+' 9-A55B:'
<><&":' <C&:-"f' FM.' <&"-:' "- 4&">' J'
=&5 ;9-:5A8 &-"f' FM2' 5"B:' -9B' 8":B-"'
-' A- =<"B!' FM, ' 9-A55B&">:' < ' -9"5
<><&":' 459f' FMN' 9-7 :f' 45' A-" 9-=59f
><&":' 4-9' 5<9' <><&":' 9<D5f' F,2' 59'
95<A459 ' -' =&5' <5:f' F, ,f' F3, ' 9B59:'
5&A5: 59' -' <J: <&"' 79-?' 7&>4 &">f' F3+'
89>4=- @:' -;&"&-"' -7' 459' A-"B8A f' F31'
5?; :' -' J9&J5' <9?<f' F3M' 5"B:'
A-?? &:: &-"59:' -' 45' <5:f' F32' =B5$
>-"B5@:' <; ;5<=' -' 459f' F33' 578:5:' -'
<&B' 45' 8>85"- :f' 1*2' (&::&-"' -7' (' '
B-' =@ Z;&P&=f' 1*, ' 59' "<C f' 1. ,$1F. '
-?? <"B:' -66B' -' <D5' 45' :4&;:' &" -'
=&"' 4<""5=f' 1FF' -8" 59?<"B:' 459'
-9B59:f' <"B' B&: ;59:5:' 45' 7=55 f' 1FM' ><&"'
A-?? <"B:' 4-9' 7=55' -' :<&=f' 1F, ' ;-&" :'
5&A5: 59' -' 4-' =<"B' A-?? <"B!' 1M, ' 59'
95< ?5"' -7' -6<9B!' <"B' 4-' 7=55 f' 1N+'
AA8:5:' -6<9B' -7' ;5A8=< &-"f' 1NF' 59'
9-< "&5"' -7' &C6D&":f' 1N1' 5: -6:' 45'
A4<"A5=-9:4&;' -"' < -"f' 1N2' 59' 95=<S
&-":' 6& 4' 45' 4 99A4f' M1*f' 59' A-" 5?;'
7-9' 45' ">=&A<"' J&:4-;:f' M1F' 59' ;-:&S
&-"' <"<=->-8:' -' 4<' -7' 5"9 ' # f' M11'
59:5A8 5:' 45' 89& <":f' M13' 59' B5< 4f'
MM2' -9' A4<9<A 59f' 2MM$M2*
=&I<J5 4' -7' 9<"A5f' 4&=&;' @:' -775' -7' 4&:'
4<"B' -f' C&&', , ' (<99&5B' -' 4&?f', '
==59D<9f' &9' <=;4f' 4&:' 48" &">' ;<9 f' &&& '
*.*f' *MN
=&A5f' <; <&"f' L&' *,
=;4&": -"5f' &A4-=<:f' &L' .+2f' ..+f' M, .f' M,1'
=: -65f' <' ;95<A459f' &' F3+
= f' &:4-;' -7' 4 ' -L5' 4&9=J '
"A=-:895:' -?? &::&-"f' C' *.1f' *22'
"A=-:895:f' A' -7f' &' FM2'
">=<"B!' :-A&<=' : <5' -7f' &"' 45' *2 4' A5" 89 !
&' * Af \' --B' <"B' ;4 :&A<=' : 95"> 4'
-7' 4-' ;5-;=5' -7f' *Nf' .+' 4<">5:' &"' 45'
<9' -7' 6<9f' 2' -A&<=' A4<">5:f' , ' 9-6 4'
-7' <?&BB=5' A=<::f' , -9B' 8>5 @:' -;&"&-"'
-7' 45' ;59&=' -7' ">=<"B!' ,f' 23' <5' -7'
;<9 &5:' &"' *MMNf' NF' 5"B5"A&5:' -6<9B:' <
8"&-"' J5 6-A"' ">=<"B' <"B' A-=<"B!' *+*f'
-A&<=' A-"B& &-"' -7' 4-' A-8" 9' &"' *M2+f'
12+f' 12.' 5A&=@:' &"W8&9&5:' &" -' 45' :<5'
-7' 45' ;5-;=5f' 12.' <5' -7' 95=&>&-"f' ?-S
9<=& f' <"B' 45' A=59> f' 121' A :' -7' <9$
<?5"' -7' *M2F' 7-9' 45' 95-9><"&I<&-"' -7'
:-A&5 f' 1N.' <5' -7' ;<9 &5:' &"' *M21f' C&&&'
21' D5 A4' -7' =C5' : 98>>=5' 64&A4' 9<":$
7599A&=' 45' B-?&"&-"' -7' =&5' :5<79-?' ;<?'
-' ">=<"B!' 1.' $' \' 5C5=-;?5"' -7'
<"' &" 5=5A 8<=' 95C-=8 &-"f' 1.M' "A95<:5'
-77-95&>"' 9<B5'<"B' B5A<' -7' ">=&:4';-9 :f'
1F+$1FF' 5C&56' -7' 45' ;-:& &-"' -7' 4-'
95<=?' J' &9' 5A&=f' 1+,$ 5:?$&; &-"' -7'
;<9 &5:' &"' ">=<"B!' 1*M$1.+' 4-'%855"@:'
?<"&75: -' -' 4-' ;5-;=5' -7' ">=<"B!' L'
2' ">=&:4' A-?59A5 &"' *M,+f' *+2' 4-'
8D5' -7' =C<' -9B595B' -' &"C<B5' ">=<"B!'
.M, ' <9 &5:' &"' ">=<"B' &"' *M,1f' L&' .*f'
..' "' *M,3f' *++f' *1*' ' < 4-=&A' ;=-'
0<><&":' ">P?B!' *2, ' " 5"B5B' &"C<:&-"'
-7f' 13+f' 131' <5' -7f' &"' *M31f' L&&' *$F!'
MN' :' 9<B5' 6& 4' 7-95&>"' A-8" 9&5:f' .'
:' ;9-:;59& f' F' &9< 5:' &"' 45' ">=&:4'
4<""5=f' 1' 495< 5"5&=' &"C<:&-"' -7f' N+f'
*M, ' <5' -7f' &"' *M3Mf' **N' "' *M32!*2,'
$' 3\' "' *M33f' MF+' $' \'
">=57&5=B!' &9' 9<"A&:f' 9&&' *, ' "' =&5'
;9-;-:5B' ;<"&:4' 5L;5B& &-"' -' ">=<"B!'
F2N' & 4' -"' -4"' -7' 8: 9&<f' L&'
3M' &:' =&75' <' 98::5=:f' 2+'
">=57&5=B!' &9' 4-?<:f' && ' M+2" C&' 11Ff'
M*F
">=-"B!' -4"f' && ' M+,'
&$&:?8:' -"' 45' !=5<9"&">' -7' 45' =<& ' A-"S
9<: 5B' 6& 4' 4<' -7' 4-' A=59> f' W8-5Bf'
R 1,
9&A' # f' &">' -7' 65B5"f' <' :8& -9' 7-9'
%855"' =&I<J5 4@:' 4<"B!' C&&&' N2'
99&"> -"f' <; <&"f' L' 11N" L&' .,*f' 12N
9:D&"5!' &9' =5L<"B59f' <D5:' A4<9>5' -7' <?5:'
f' L&' *.+
9:D&"5!' &9' 9 489f' C&&&' .2.f' .2F'
9:D&"5!' -9B!' >-C59"-9' -7' B&"J89>4' <: =5!
C&&' *.3' 578:5:' -' <B?&' 45' 95"A4f'
M' &95:' -"' 45' 95"A4!' *M2' -=B:'
45' <: =5' 7-9' 45' 57-9?59:f' *2F' 5$
78:5:' -' :8J?&' -' <"' '<8 4-9& ' J8' =&<'
-7' 45' <9=&<?5" f' *3*' &C5:' ;9- 5A &-"'
-' 45' %855"' 5>5" f' N*'
:A-J5B-f' :5A95 <9' -7' 4&=&;' f' :5" ' -' 4-'
5 459=<"B:f' L&' 2, ' 5 9< :' 4&:' 98: f'
23 8' -' B5< 4f' N3
::5Lf' <9=' -7f' 4-?<:f' 9-?65=' A95< 5Bf'
&&&' 131' 4 ' 9-?65=
::5Lf' #<= 59' 5C-958Lf' <9=-7' AA 59A$
9A L
::5Lf' &9' &=&<?f' &C' MM.'
::5Lf' <B ' x6&75' -7' <= 59' 5C5958: f' L&'
,*f' *MFf' *N3

& IR&& "i:f &9 -4"f &&& 1*2
=E& I ?<89&A5f <?5:f A<=:& &-& 9&:4 -<9?:f
1+, (89B59:- ">:&:4 :5 =59:f 1N,!1N3
:A<;5:- =&=D-"" 2+, 495< 5":- &9
599- f 2F, "C<B5:- & ?-9&AD 6& 4
A- :f 21+ 575< 5B J 599- f 21+f 21*
"; <&"f L& .+1 J <&":- ?-"5 <"B
;-659:- 79-?K 45 -;5f .+M <&=:- 79-?
;<&"f <"B =<"B:- < &">=5f .+,f .+3
<=:- -"= 45 <9=-7 5:?-"B -"R-&"= 4&?f
.+3 &==5Bf .*F &:- 6&B-6 <"B A4&=$
EB95"f .*N f
& I9<<89&A5f <B f L& ..2
& I9- 4 & &&?-"B
& I6<= 59f C& .***
& I6<995"f -9Bf &&& 1*2 C& F,
& I6&=&<?f &9& 9 <"f 6-8"B5B < B&"S
J89>4f C& . . ,
& I6&=&<?f 5-9>5f L .2*f .2
& I6&==&<?f &9 ?==&<?f & *2,"f && 1N+!M+2
&& =& 95< 5B <9=-7 -8 4<?; -"f
.2,f FF+ -?2<"B:- 45 7=55 f FM+f F,N
(55 :- ""5-7 =5C-:f 12Ff 1N,
& I6&=&<?f &9 &==&<?f =57 &"= A-?2<"B &"
8J=&"f C&&& *2H " 9<; ;5B J @ 5&=f .F
8 :<C-:- 4&:- 7-9A5f .Ff .1 -5:- -
-"B-"= <"B 95 89":- 6& 4 ?-"5 <"B &5&"$
7-9A5?5" :f .2!*.* 5;8 -7 95=<"Bf
2F* &:- B&77&A8=&5:f M1N &:- ;& 5-8:
A-?;=<&" :f L& =3* &:- <AA-8" -7 4a
=-::5:-7 45 "&<B<f L&& 2+N
& I6&=&<?f (9!< ;9&5: f C 1*N
=<&"?-ADf (&A4<5=f -7 5C5=?@:f &&&
F.*
=<"B59: 4 5 459=<"B:
=55 6--Bf &9 4-?<:f C&& 1MN"f L *N*
&:=5 59f -9B 89>4=5 @ L&& 1 (*$
=5?&">f <9=-7f &C *NFf . .,
=5?&">f -9Bf &L . .Ff . .2f .F.f .1Ff .1M
&:45:- J9&J5 5A&=f . .23 -=B:- 8?S
J<9 -"= &"= (<9 8<9 @:- "<?5f 1M,H L
*,1f *,M -:5:-H45A<: =5f *,3
=5?&">f <B f L =&7 f *,N
=5?&">:-&"= "><"Bf &-*. 4-8:<"B:E-7
7<?&=&5:-7f &"= "><"Bf C&& .+:-* L *+,
=5 A459f 9 f 4&:- :59C&A5:- B5A=&"5B J 45
7 855"= -7 A- :f L&& FF,
=5 A459f (9 f -7 5f &&& F2F
=5 A459f (9 f 9<D5@:- A4<;=<&"f L&& F,Ff F,2f
LA-?78"&A< 5B J 9<D5f FN2
=-BB-"= &5=Bf &C 2
=8:4&">9&:5:- <><&":- 45 ;<"&<9B:f L F,1
B5 -&Lf <8=f -"= 45 ;9-;-:5B ?<99&<>5 -7
(<9 %855"= -7 A- :-<"B -"= <9=-:f C&&
1+M &:- &" 59C&56 6& 4 =&I<J5 4 <:- -
@ 45 5C<A8<&-"= -7 <C95f 2*+ :- -45
E 95"A4 ?<99&<>5f C&&& *.*# L F+. "B
<:- -A- A4 <77<&9:f C&&& *N2 -?5:- -
-"B-"f L F2,
B- -"5"< f (f L& 2*Ff 22.$2,*
--B-7 45 ">=&:=& ;5-;-:5f &Kb . $ 9&A5:!
.*$.M "4<"A5?5" -7;9&A5:f FM "B
&"= *22Ff C&& 1N.
-9J5:f <B f ?&B 459 A4&=B95"f ?89B595Bf :&
F1*
-9J5:f (<:59-7f D&=-5Bf &C 1+
-9B4<?(-"<:59 f ?-"D:-7f && 1M.
-95: f <459f ;95<A=&-9-"= %855"= <459&"5@:
:&B5f & F,M & FFM &:- -775"A5:f &&& .NF
&:- J<9J<9-8:- B5< 4f .N,
-95: =<6:f & 2N -6 95><9B5B J 45
;5-;-:5f 2N
-99- f <459f C&A<9-7 -=-9f J89" f &C 2M
-9 5:A85f " -"E R-&":- 45 A-":;&9<A -7
45 -=5:f C&& 1.3
-:59f &9 -4"f C&&& $.FF"= &L ...f MF3"= L
1.f F3N'0 <AD5B J 59f L&& *+F
-:59f A<;<&"= -7 45 9&?9-:5f L&& *.N
-459&">8 <:=5f 45 %855"= -7 A-:< !
L&& .2M $ 3\
B5 -8>59-=5:f (!&C F2N
-8" <&":- JJ5 f <J8:5:< f && 11N JJ-
-7f &&& .*F
-Lf B6<9Bf &:4-;-7 5957-9Bf 4&:?&::&-"=
-45 8 459<":f && 1.*
-Lf ==&AJ<9B &:4-;-7 &"A45:59f &!*F*
(*$
-L-f -4"f 45?<9 9-=->&:f &C 1N3 3$ \
L& .2
B5 9<?-I5=--:f (f &C F11E
9<"A5f &:B-8J 78= <=5>&<"A5 -45 <;<A f
& .2+ &C&:&-":- &"= 45 -89 f &C *2.
<9-7f 6& 4 4<9=5:- # f *,*- <A &-":-
&"!C F+2f FFF <9 6&=&f C& 1,2" C&& F+
6-;<9 &5:<"B 6-;-=&A5:- &"= 9<"A5f F*
5=&>&-8:B&: 89J<"A5:- &"= *M2+f .FN <5
-7;<9 &5:- &"= *M2.f F3*
9<"A&:- f & *F1 &:- ?5::<>5 -45 P"&S
C59:& -7 <9&:f .,1f F31f F3,f F33 (55:
5"9 #&=& f FN, BC&A5:- f 1.3
E 4<9<A 59f 1.N & ;-=&A f *.2 :->-BS
7< 459 -45 9&"A5::- =&I<J5 4f *1N &:-
;9-;-:<=:- -5"9 #P f *2+f .F.f F2M
&: 98:- 4<9=5:# f FM1 59:5A8 5:- 9-S
5:<" :f &&& 2 -A5&C5:- 4<9=5:# 12,
"= 9-?65=f 2+2 "= "5 -7 =5C5:f
M*F -&":- A- =<"Bf &C *+ "= <45S
9&"5 -6<9Bf *F1 (5B& <5:<"= <=&<"A5
6& 4 45 89D:f E*2Ff *,* 575< 5B <
59;&>"<"f *,2f *3+ &:- ;-:& &-"= &"=
E *M1.f *N, 5"B:-9--;:- -A- =<"Bf F*+f
F.3f FF, &:- C&-=5"A5 <J-8 (&=<"f 1MN
(<::<A95:- 9-5:<" :f 12. &:B5< 4"C .2
9<"A&:f 45 <8;4&"= x<7 596<9B:- 9<"A&:-
-7 9<"A5 f 4&:-:8J:A9&;&-"= -45 5<A5
-7 <?J9< f /&& 22 ::8?5:- 45 <9?:-
<"B & =5-7 &">-7 ">=<"Bf \A f 22f *++!
*+,$ 5A-?5:- D&">-7 E9<"A5f *.F$ &:-
;95;<9<&-":7-9 &"C<B&">- A-=<"B "B
">=<"Bf *.1 &:95:- -7 4&:- 9--;:<
5& 4f .1+ &:B5< 4f F++
9<"A&:f &9 &=&<?f C $*N.

9<"A&5A<"!:;55A4-7<!< 45 &5 -7 -9?:!
&C 1*,
9<"D7-9 ! ">=&:4 5L&=5:&"!C&& *+F
95B59&AD -7 -=5B-! -"!L F3+
955 -6":9578:5 45 " 59&?!C NM!.N,
95"A4 9--;:&" A-=<"B!C&& *.F $ 3\
5:&5>5B&" 5& 4!..M!..N 45&9:& 8<S
&-"!..M 45&97-9 &A<&-":!..2 <==
-8<"B :89;9&:5 45J5:&5>59:!..., 45&9
A-89<>5! .F+ <&=895 -7 45 ">=&:4
<::<8=!.F.!.FF 59&-7 45 95"A4&"
5& 4!.FN$ -?? &::&-"7-9 ?<D&"> 59?:!
.FN 95&& -7 B&"J89>4!.M3! C<A8<S
&-" -7 5& 4!.2.
9&B5:6&B-! !>9<C5-7!C&123
9&B-:6&B- -=5>5!-9 =&9&: 489A4!&&M+
9& 4! 45 ?<9 9! 4&:-775"A5!&133 ' && F*
9-J&:459!(<9&"!C&&& 1M.
8>>59:! 45!-7 " 659;!#3! F13" C&F13
C&&!1..
8=65==! P=;&<"! 4&: A4<9<A 59 -7 5"9
# !&C MFF

N $! &9 4-?<:!&1MM
<>5! &9 -4"!&&& F3+" C&*,3!*NF!
.+N!.*+!.*M
<>5! 45 A-":;&9<-9!<995:5B!L&&.MM
9&5B<"B 5L5A8 5B!.2M$.,+
<==-6<! &:4-;-7 4 -9B-"!=5L<"B59
<9B&"59! !<"B 45 --B-7 -C59!&&!*NF
<9B&"59! 5;45"! -=:5H: 5A95 <9 !4&:
=5 59:!E&*FN!*1. " -=:5 !.N1
"C5" : ">=&A<"&:?!FMN" && 1+N &:
&"7=85"A5&"B9<6&"> 45 &L 9&A=5:!&&&
FN3 &:5"?& - 9-?65=" 11N :
B&:?&::5B 45 -8"A&=!1M* &::59?-"<
<8=@: 9-::!<"B A-9-C59: 6& 4 9
<9"5:!1,F!M*+!2*2" &C E.M.! ;;-:5:
45 A&9A8=<&-" -7 45 &J=5!.N. &:
;=<":<><&": 9<"?59!.NM!F,*!F,2!F3+!
1MF!1N3 9&-: " "5 :A85!M+*$ =-:
< 98::5=:!M*, &:<BC&A5 - 45 9-$
5A -9!#FM!M3!2+!2.! &:59?-"!*+M
-5: - 45 -659!*+2!.M1!.M, AA5;:
45 9<59 --D!F**!F*F!F*M &:9&<=!
F*, 5;9&C5B -7-77&A5!F*N!2*F! 5R-&":
45 -""A&=!C&1M (<B5 -9B 4<"A5=S
=-9!MF!21 " 59A5B5:7-9 -9 48?J59S
=<"B!2,!,, ;;-:5: -=5@:95 89"!NF
&:B<">59!N3 (-8" <&"@:<AA-8" -7
4&?!*+F -"5!*+1 %855"@:<">59
6& 4!*.M!*1, &:45: -:5&I5 =&I<S
J5 4!*2*!*22!*M2!*2F!.+M 4&5=B:
-89 5"<!*,*!*,M &:A985=!*3*!
*3N!*NF!*N2!*N,!.+M!.*.!.*F!.$j!
.*N &:;59:5A8&-"J&==:!..+!..1!..3
" 9-B8A5: -=5<:=5><5!.,M!.3*!.31!
.NF 9&5: --;59<"B ->59:!F*1 &:
B5<4!FNF &:A4<9<A 59!FN1 &:5;&S
<;4!FN2

<9B&"59! 59?< "A!:5A95 <9 - 4-<J-C5!
4&:B5<4!&C .NM
<9>9<C5! &9 :;5<D59!C&&2+ 9-:5A8 5:
45 "-9 459"&":89>5" :!&L M22
<995 ! 4-?<:!J9&">: 5: <?5" : - LS
7-9B! &&! 1, &: 5:A<;-! 1N <; 895B!
22! 2N 9&5B<"B J89" !&&&M.M!MFF!
<99-6-! &9 &=&<?!&&&*,M
<$:&"5:! 45!<"B 45 <9B&"<=-7 L 99<& 5!
FM+
<5:! &9 -4"!&C M*2" C&.. 9&5B!22!
,+ L5A8 5B!,F
<5:! &9 5"9 ! 9&5B!EC&22!23! 2N
5=9&C59!J< =5-" 45!&L 2NF
5?J=-89:!J< =5-7!L&NM
B- 5"=&:!>-5: - 45 5 =&59=<"B:!L F,M!
F,2 575<5B J &95 ;<"&8"=:!<"B
:9<">=5B&" ;9&:-"!F3+
-99<9B! &9 &=&<?!L&*N1
45"! 95< -7!L&2N! 8A&7&A<&-8-7! 31!
+O,
4&"8AA&! &:4-;-7 -9A5:59!&.23 5S
;9&C5B!&&.++
&J9<=<9!+ 9<F C&&&11+
&77-9B! &=J59!L&&.*1 4<9=5!.*M!
.*2 5A-?5:<AW8<&"5B 6& 4 <==<LB@:
;=-!.F2
&77-9B:! 45!L&&.*F V
&=J59! &9 8?;495! <D5:C-=8" 559: -
45 5 459=<"B:!L F,3 95<?5" 4-
95A5&C5: 4595!F3F <">: 4&: ;<"&:4
;9&:-"59:!FNF 5:&5>5: 95>8:-!1*M
5A<==5B!1.N =<=R-=<"B!13N "<9?:
<><&": 45 9&:4!M+1 =&&:A985=!2+,!
2+3 5A<==5B!2*M E
&=;&"! 59"<9B!C**,
&;:&5:" A 95:;5A&">! F** &H
&:J-9"5! 5-9>5!4&:5C&B5"A5!&&8 NF !
&8:&"&<"&! 45#5"5&<" <?J<::<B-9!&!**M
&:B5:A9&;X-" -7 <"9 # U!*,,
=<?&:! <B !Jc? !&C 1N
=<? :! 45 4<"A5=-9!D&==5B!L& **3
B5 =<:&-"! 5&>"589'! 4&: ?&::&-"& 79-?
4&=&; -!%855" =&I<J5 4!C&& .*2
&: ;9&C< 5 <BC&A5! .*, &: ;-"C-9:<$
'&-" $6& 4 45 95"A4 <"B ;<"&:&H H&?$
J<::<B-9:!.*3
=<::5-7 98 4!@-7 5"9 #&=&!&!.3N
=<:-"J89! 9&<=<"B B5<4-7 4- JJ-!-7!
&&& $1F* 1FM! 1F3 $
=<:-"J89 -995!&&&& 1F,
=5"A<&9"! <9=-7!&C *NF!..3!.F*!.1*!
F*1 &>":<;5&&-" - 45 %855" -7
">=<"B!C&& B$*.. 9&">: 45 99<" ;5&S
&-" - ">=<"B!.NN -&": 45 %855" -7
A-:< 8"J<9!C&& .22 9-;-:5: -
=5<C5 45 A-8" 9 I&&L 2* 8 95?<&":!
M1 0 89>5: W=9--B A4<;5=-7 <=&-=&A
-9"<?5":!**2 !&
=5"?<=895?<::<A95:&"!L M**!M*. -9B
9-B5 &=-"B575<5B&"!L..N

-BB<9B! &=&<?! && 2+,
-B-=;=&&"! &9 &=&<?! &&& F. ' C 32" C&=&
12M
-B:<=C-! &9 -4"! 9 2+
-"&7I! 8 ! C& .3F! F+, &: :8>>5: &-"
": - <=<&:! C&& F* <?J9< ! 2+ ṁ
-"I&&><! -C5"&-9 -7 (&=<"! C N+! .*3! FFF!
FF, ' C& .F*
-"I<=C- 59"<"B5I! A4<;=<&"" - 4<9=5:' # !
4&: 95; -9 -"" 45 9&:4 5L;5B& &-"! && .3.!
.32 (*!
--B?<"! C& 2*1
--B9&A4! 4- ?<:! &:4-;' -7 = ' <"B -9B
4<"A5=-9! C 11M A;L&C-B -7 =&5 :5<=!
C& MF &: <BC&A5! C&& .+
--=B! < 459! && *,3 <D5:' <' ?5::<>5
79-?' 45 8"" -7 5" ! *3+
-9B-"! =5L<"B59! &:4-;' -7 <==-6< ! 4&:'
:59?-"" -"" 45%855"" -7 A- :! &L FNN (*$
A-?? &:-&-"59 7-9 45 %855"" -7 A- :! L

-9B-"! -9B B<?! C&& 113' 5: 9- :' 45
A=<"" -7 -9J5:! L F1*
-9B-"! -9B -4"! <&9B -7 &"B=< 59! C&&
112! 11, L5A8 5B! 113
-9B-"! -7 -A4&"C<9! &C F. m
-9B-":! 45! (899< E: 5L;5B& &-"" <><&": ! &L
12F
-9>5:! &9 =&-?<:! <995: :' 45 %855"" -7
A- :! L&& .M,
-9&">! &9 &=&<?! &&& 33+
-9?<": -"! #&:A-8" ! &C N+
-"9B<&"! (! -C59"-9 -7 <=<&:! L&& 1,+
&:' A-89 5: ' -' -6<9B! 1,3
-659! &9 B6<9B! &&& *,M
-659:! 45! &&& *M+
-69&5! <9= -7! L& M++ &:';=- :! M++ $ \
2.+! 2.*! 21F L5A8 5B! 213! 21N" L&& .+
-69&5! <B ! L& M+*! 21N L&& .2
9<7&>" ! 8>8: &"! L&& *,3! *3+
9<?? -"! <9B&"<=! &' F3,
9<"C5==5! 4<"A5=-9 -' 4<9=5:' # ! &&& 1' '
&C *,1! FF*! FF2! F1*! F2,! F,3" 1*,
9<"C5==5! &:4-;' -7 99<:' x:-"" -7 =&5 <J-C5 !
:5" ' -' 5"9 ' # ! &C F2.! F, *! F,1!
F3F" C&& F+! 2+! 2.! NM! *2+! *2*! *2.
&L F*M
9<C5! J5:&5>5B J ' <9?<! L&& *33' 8995"S
B595B! *3N
9<C5=&"5:! ?55 &">-7 -?? &::&-"59:' < ! &C
11M' < =5 -7! C& M*3
955"7&5=B! &9 &A4<9B! -7 -65 <"B &B5S
7-9B! #' 32!@*N,
955" 6&A4! ?<:W85 < ! B5:A9&J5B! &' ,F! ,2
%855"" =&I<J5 4 < ! C&& .N,! .N3
95>-9 ' ! -;5! 4&:' -JR5A &-":' -' 45
9&"A5::' (<9><95 '-7 9<"A-@:' ?<99&<>5! L'
FN1' &:R- '<' 45 ' <9 4-=- ?56'?<:S
:<A95! 1*+' &:' A=<&?:' -' 95=<"B! 2*N'
<"A &-":' 45 ?89B59 -7 %855"" =&I<J5 4!
L&' F+1' <?5:' # @:' =5 59 -' 4&?! 2F3

/" 0.1! 213 4 5 6 13 !! % ' ' 8 !
132 57 3+
95:4<?! &9 4-?<:! C' 113! 1M+! 1,+" C&'
M*F' C&& *M! *21! *2N! .+* (*$ ' 1. .! M+2"
' *2! 1*M
9-C&=5! 8=D-! C' *.F' ' &">=5!L&' ..F !
95 ! -9B -4"! -"5 -7 < A-?? & 55 -' A-"S
:8=' 6& =& =&I<J5 =&! C&& .2' &:' 6&75! 12'
&:' 95?<9D:' -"" 45 ;<"&:4 ;-=&A ! ..F
95 ! -9B 5-"<9B! J9- 459 -7 45 (<9W8&:'
-7 -9:5 ! && 3*2" &C 22' (<B5'B5;8 '-7
95=<"B! 2,! ,*' %8<995=:' 6& 4 9?-"B!
,F! 3+! 31! 3N! N1! N, 5"' -' 45 -659!
NN &:' 9&<=! *+. ' L5A8 5B! *+F
95 'B-' 8 4&"! <9= -7 5" ! ;95:5" ' < ' 45
%855"" -7 A- :@ 5L5A8 &-"! L&& FF,
95 'B5' &= -"! &=&<?! <9= -7! <D5:' <BS
B&"> -"! ,2' 5;95::5:'&":8995A &-"H' &:'
:5C59& ' -' ;9&5: :! *32! *N*! *N.! *N3'
5"' -' 45 -659! F,2" C& F,! .N1' -'
>-C59"-9 -7 8&:"5:! 1N+! 1N..! 1NF! 1N1'
-8"B5B! <"B ;9&:-"59!! M+M! M+2' -?5:'
-' ">=<"B' -';9-;-:5' <:5A95';5<A5' 6& 4'
9<"A5! C&& F. ' 5"' -' 45 "-9 4 89& 4 <""
<99< ! *M1' 9-::5:' 45 655B! .*. ' 9-S
;-:5:' -' <D5 B&"J89>4 <: =5! .*. ' 8'
7-9J&BB5"" J ' 45 %855"! F *F' &:' 5L59 &-":'
J57-95 5& 4! ..3! ..N' 4<9>5B' 6& 4 6 <"'
-7 5"59>' -9 :D&=! .F+' 9<8B:' &"" 4&:'
<9? ! .F*' 9B59:' 45 <::<8=' -7 5& 4!
.F. ' 5A&@:' A4<9<A 59 -7 4&?! .M.'
95 'B5' &= -"! 9 489! <9= -7! :5" ' -' 45
%855"" -7 A- :' J ' =&I<J5 4! &L' 22! 2N'
5A=&"5:' 45 C&A5$9- <= ' -7 -=<"B! L'
M1.' 8 ' :8J:5W85" = ' 8"B59 <D5:' & ! L&'
..3' (<9A45:' <><&": ' <= &"><::! ..N'
575< 5B' < ' =5" ?<=895@! ..N' -5:' -'
&">=5! .F1' -?J<9B:' <"B A<; 895:'
?596&AD! .FM! .F2' L5A8 5:' 45 ><9S
9&:-"! .F, 8 :' 95J5=:' -' B5< 4! .1,'
5A<=5B' < ' 4&:' -6"" 95W85: ! .2*' &:'
:;55A4' < ' <C&:-"@:' 9&<=! L&& FM2
95 ! (<9W8&:' -7 -9:5 ! <B ' <"5@:' 7< 459!
#' *F.! *1,' (<B5' 8D5' -7 877-=D! 1NF'
C&' .+! ..! F.! F1! 2*! ,2! *1F! *22! *+N!
*3.! *3F! *3N! 1++
95 ! <B ' < 459&"5! B<8>4 59 -7 45 <J-C5!
?<99&5:' -9B 59J59 ! C' 1N2 E 59 79&5"BS
:4&;' 6& 4 45 "D-' -7 59&<! C&& ,+' 59
A=<&?' -' 45 9-6"! ,+ (*$ 'UL8' C+'5LS
;95::&-":' <><&": ' =&I<J5 4! N. E " 9&>85:'
95:;5A &">=&59" N.! NF' (<99&5:' -9B
59 7-9B! <"B A-?? & 5B' -' 45 -659! F,*'
-":&B595B' -' J5' 45 -"=' =5><=' 45&9' -' 45'
49-"5! 13F' &C5:' J&9 4m -' 459' :5A-"B'
A4&=B! 13F' &J59< 5B' &"" &=-' 45<= 4! 2.+'
C&&& ' ,N' <=5@:' B5/5"A5' -7 459' A=<& ?' -' 45'
:8AA5::&-"! 3+' ":659:' -' <=5@:' J--D!
F.2' (*$ ' =&I<J5 4@:' B5 5: <&-"" -7 <B '
< 459&"5! &L' .*' 59' B5< 4! *33' 59'
6-' :-":! *33

9&

?89B59 (&&9&$< ! +,M :::<::&?& A: 4&?!
M3+ -? 89B59 45 9&8A-'-7 9<">5!F ' M2*
<?&= -"! -4"! 5?;=- 5B -? 89B59 -$
=&>" !&L M, &
<?&= -"! -4"! 9A4J&:4-;'-7 "B956@:!
4&:A4<9<A 59! C&& *+1 79<&B -'5" 59
"B956@:! **1 &C-9A5: - 46<= 7&$-?
4&:6&75! &L ,* "5-7 (<9 @: -?? &:S
:&-"59:! .+F ;<9 -<9"=5 @: ?89S
B59! M,M &8"J<9 -"! L*,M (<B5
;9&:-"59!*,3 $L5A8 5B!*3+
<?&= -"!< 459&"5'x:&: 59 -7 &9 < 9&AD !
459 5:A<;5!&C 2F
<?&= -"! -9B =<8B5! &L .*F <">$
:&B-! ..1 "' <9&:! .,* 8: 5""-L
:4- ! .31 m
<?&= -"! &9 < 9&AD! &C N 89" ! 2N
<?&= -"! &9 &==&<?! &C .*2 <">$
:&B5! &L ..1
<?&= -":! 45&9R5<=-8:&5:-7 45 8<9 :!&L
**1 %855"*M*&I<J5 V@: A-995:;-"B5"A5
6& 4 45?! *12! *22 45&9 95<B&"5::-
<>955 -(<9 8<9 @: B5< 4! *12$*13
&A8 5<;<9 7-9 459! *N1 B 9<&:5<"
<9? ! ..F (55 45 5>5" <; <">8&B5!
..F! ..1 575< 5B <"B <D5"; 9&:-"59:!
..+ 45&9 ;9-;-:<=: -' 45 ->5" ! 1F1
5 5: 5B! L F1+ 5A-C59 45&9 5: <5:!
L&&& ==
<?&= -"' <: =5! (<9 8<9 5:A<;5:-!&L
.*1 45 >< 459&">; <! .*1 <D5"' J
45 ->5" ! ..2 "B J 989 ! L MN
<?;-"! 4-?<:!!R-&":' <6D&":' &"' 45
:=<C5 9<B5! C&&& 1,+
<?;-"' -89 !%855"' =&I<J5 4<!C&&*F,!
1' -8"A&-7 559:<!&L FFM! FM,
<9;59! &9 5-9>5! C& *22 5 9< :' 45
8D5-7 -97-=D! *M1!*,1 5:59 :' <!
*
<9;',:75=B! C& **1! .,+! FM.! M*1" C&&3,
<99&:-"! <?5:!&1,
899 45 95< !& &C 1.+! 1.F
<9 5! C59<9B! 45 5:8&! 89":;!L F.2!
FF+ L5A8 5B! F1,
<9=5;--=:5A895B J 45 95J5=-9B:! &L
2*N
<9C5=! W8-5B! &C F2.
<:=-J ! <; <&"' <=;4! L& *2
<:&">:! A=59D <! &&& .1*
<:&">:! &9 B6<9B! C& *3! *F3! *FN! *2*!
*N.! .22! 11F" C&& .+
<7&5=B! %855"' =&I<J5 4<!C&& *1! K;
<-"! &A 49&:-;459! L& .' 7<C-89& 5
-7 %855"' =&I<J5 4! F! *M1! *2+! 1*+ V{-!
112 L&& M+! 2M! .3*! 1N2! MMM
0 <-"' <9B5"! L& M
<8>4-"! 9&-9 -7 45 4<9 594-8:5! &&
FFM!F22! F23! F2N! F,,! F,N
8C9`! (<9W8&:!5"C-'&9-?' 45 5 459=<"B:!
L& 3N

e7

<C95! -77595B -%855"' =&I<J5 4 J -"B`!
C&& 1.* AA8;&5B J <'" ">&:4 <9? !
1.M 9&A "5:-7 B&:A&;=&"-5"7-9A5B &"'
45<9? ! 1.2 45 ">&:4 ><99&:-"' 95S
&"7-9A5B! 1F2 - &A5:5" -45 ">&:4
-=5<C5! M+, 5:&5>5B J 45 95"A4!
M** 45 ><99&:-"' < <AD5B J 45 ;=<>85!
M*. 8995"B59:! 2*2
<$6&AD! -9B59! 4&5C5:<!&L *,+ 89"5B!
1F
<6D5:! ?<9 9! C& FFF
<6D&":' x<7 5" 7B:' &9 ! -4"! =&:' :=<C&">
C- <>5:! C&&& 1,+! 1,F! 13+ &:' ;9-7& :!
1,3 <AD:' < ;<"&:4 ?<"' -7 6<9 &"'
= ?-8 4 4<9J-89! 13. &:'5L;5B& &-"' -
45 ;<"&:4 ?<&"! &L FM3 5: 98A &-"'
-7 4&:'7=55 ! 32*' A 89":! F2. 95 5"B:' -
J5<9<& -9! L .2+ 7759:' -' B5:59 ! .2*
5A5&C5:' 45 %8554 -7 A- :' <"B 4&=&;!
.2F! .23 &:' =5 59:' -' 5A&=! .21 (*$
.2N &5:' &"' 6<& 7-9 45 (5L&A<"' >-=B
7=55 ! 1*2 -&"' -"' " -"&-! L& 1..!
1F. 9-;-:5:' -' B5: 9- ;<"&:4 :<&=-9:!
L&& *.2 =<A5B! <' 45<B -7 45 ">&:4
"<C ! 1.3 &:' ?5 4-B -7 ?<"<>&">' 4&:'
7=55 ! 1.3 &:' ;=<"' 7-9 J8&=B&">' :4&;:!
1F*' -6 95< 5B J 45 %855"! 1N1
<6D&":! 9 &A4-=<:! ">&:4 <?J<::<B-9
<' "?:5=:! &' 1,+
<6D&":! &==&<?! 4&:' C- <>5:-7 B&:A-C59 !
C&&& 1.,' &:' A98&:59:! &L F2F
<6D&":@:' =B =< :!@ W8-5B! &&& F,1
(*$
<!-7 <==-! C&&& F2M' <">5B! &L .+2
<B-"! 45 ;&9<5! C&&& 12F
5<4! &A4-=<:! &:4-;'-7 -9A5: 59! <"B
<7 596<9B:' 9A4J&:4-;'-7 -9D! C' FMM'
k 5:9-95B! C&' 2F' 5"B:' -9 48?J59S
=<"B -"' 45 :A<77-=B!E,*' 5<:5:' -' 45
A4<"A5=-9! C&& *3' 578:5:' -' A9-6"'
=&I<J5 4! 1+' "' 459 7&9:' <9=&<?5"!
1.' &:' :;55A4 -"' 4-' 8;95?<A' &=!
22' 578:5:' 4-' -<4 -7 :8;95?<A ! 3N!
N*' 9--7:' -7 95<:-"' 7-8"B <><&":' 4&?!
N+
5=75: 5 "! -8"! 4&:' ?&::&-"' 79-?' #&5""<!
C&& *NN
5"5<>-! &9 4-?<:! &' *3,' ' &&& ' *+*! *+.'
C&' 11*" L&& *2N! *,F! *,M
-">9<C5 <==! &' *+
5"9' # ! &">' -7 ">=<"B! 4&:' 4-8:5S
4-=B 5L;5":5:! &' FN' &:' =5<9"&">! 1,'
&:' 5LA5=5"A5&"' ?<"= '5L59A&:5:! 2M' &:'
45-=->&A<' ;9-;5":&&5:! NN' -<B:' 45
@ 5>><9@:' 5 &&-"! *+M' &C-9A5:' <45S
9&"5 -7 99<>-"! *+2' &:' ?<=5 A4&=B95"'
B&5! **.! **N' #<9&-8:' A=<&?<"' :' -' 4&:'
49-"5! **.! **M' &:' ?<99&<>5:! **N' &:'
?-&C5:'7-9 45 B&C-9A5! *.*' -&"':' 9<"A&:'
! *F1' 495< 5":' 45 -;5' *2M' <=:'
<>95<' A-8"A&=! *M,! *2,' &:' 5<9=' A4<$

P

9<A 59 <"B <; ;5<9<"A5 *, M *, ,!*3+ "$:=<"A5 -7 =5"& &"! *,N ;5": <9=&<$?5" ! .+2 5"B:5?J<::&5: - 4<9=5:# ! .M, &: =5 59:! .,3! .3* &: J--D! =&- =<::5 -7 98 4!. .3N <==:4&?:5=7 5<B -7 45 489A4!F++!F+. &: ; -9&=$ -8:; -:& &-"" - ' J55"" B8= A-":&B595B! F1F! F11! F,2! F3F 0 &: =5<>85 6& 4 9<"A5! F3N ? ; 4&==! FN+ &5 ; -&A -S 6<9B: A- =<"B! FN1 -A: - ?55 9<"A&: < -8=->"5! FN2 FN3!1+. 55: 45 8"" -7 - " !E1+1 &=: - 4899 45 B&C-9A5! 1+M E &: 98: : 45 -;5! 1*, (<99&5: "5 -=5 "! 1*3 &: A-"B8A B&:A8::5B! 1*N!1. . 5-5&C-:<"B <": 659: 45 -;5! =5 59! 1.M! 11* AD"-6=5B>5: 4&: ?<9S 9&<>5! 1F+ &: 755=&">: -6<9B: 9- 5:S <" :! && F3 E :A& 5B -?5! *.1 &: =5 59 -45 8D5 -7 -97-=D! *.3! *FN ;;5<=: -<>5"59<=A-8"A& *F+ =-A<==: 45 5?J<:: -45 -;5! *F3! E 5"B: ?&:S :&-"" -45 &=5A -9 -7 <L5! *12! 1.. 578:5: 9&"A&: = @: ;9-;-:<=:! *2 &: k =5 59/ -45 9&"A5:: (<9 ! *, + "A89: 45 A5":895: -7 4- 4C 9A4! *N3 495< 5":: E0 9<"A5 6& 4 45 9-5: <" <==&<"A5! *NN &: ?5" <: : 98>>=5:! .+2 775A -7 5L$ A-?78"&A< &-"" Q-"" 4&?! .33 &: -9B59: -A=59> <"B =<& ! -J&:4-;:! .1.! .1F -:459&77:!E.11 -9B 8995 &"" 5 =8"B! . ,2 E &: =5 59 - @ -"" -9! .3, &: A-"B8A -95=<"B! F*M "" 45 5S 7-9?<&-"! FM+ &:98: 9<"A&: '! $FM3 &: A&9A8=<9 =5 59 -=-9B: =&58 5"<" : -"" 45 A=59> ! F,F$ L;=<&": 4&: A-"B8A ! 1+3 "::659: 9<"A&: <"B 45 -;5! 1+N!1*+! 1*1 -"A&=&< 5: 45 9-5: <" ;9&"A5:! E1.+! 1. .!1.M 5<9:-7 %855"" < 459&"5E: B5< 4! 13+ 8:;5A :""5! 132 (<99&5: <"5 5 ?-89! MF*' &: ?5::<>5 - <9S =&<?5" ! MFF 5A5&C5:; -659 - J5W85< 4 4&: 49-"5! M1* &: A-"B8A -6<9B: 45 ?;59-9 &&& **! *F 9<6: 45 7&9: 9S &A=5:-7 5=&>&-"! 2, ! ,1 &: :4<95&"" 45 ">=&:4 &J=5! ,N! 3.! 3F &: <": 659 - 45 95J5=: &"" 45 -9 4!$**1 E &: =5 59 - j-9B <9A ! *.3! $*F1 BC&:5: 4 8D5 -7 -97-=D! *1M! *12! *2F! *21! *,1 &: A-"A5::&-": - 45 95J5=:!E*, ,! *,N! *3+ 5A5&C5: :D5" *31 <&":45 -9 4S 59"" >5" =5?5"! *NF! .+.! . . . L=&-9 : k 45J&:4-;:! .1, 5"B: - 45 "<C ! .1, -9 &7&5: 45 A-<: !E.M2 &: J<B 45<= 4! .2+ &: >9&57 < <"5 5 ?-89&: B5< 4! .2F P"6&=&">- ?<99 <><&"! .23 &: "5>- &< &-": <J-8 =&9&: &"<! 8A4-:- 7 (&=<"! .,M - B5A5&C5B E J 4<9=5: # !E .3+ 5"B: -""5 - &A5! .3. : ::85: d A&9A8=<9 - 4- R8: &A5: -7 45 ;5<A5!! FF+ (<D5: <BC<"A5: - 4- 8 459<": ! FF3 <?J59 @: 9&<=! F1F -5: - 4- 5"&:4 A-<: ! FM+! <: <>9<"B A& FM3 &: A955B! F2, &:45: - <A <: ?-B59< -9! F,+! 3,F &< C<: ;-659! FN* ;;5<=: - 4-"<&-"" -"" 95=&>&-8:K B&::5"::&-": ! FNF! FN2! "B5<S C-89: - ?-B59< 5 4- J&:4-;:! 1+M & =& 9&"A5 B:6<9B! 1*+ 4-:8;;-:5B ,.!+++ 5L5A8&-": ! 1*F &: <BB95: - ?<>&:S 9< 5:! 1.E1 ?;<&5"A5 -7 4- A-8" 9 7-9 J&: ?<99&<>5! 1FN! 11F 5>&""&"> -7 45 J9A <A4 6& 4 9-?65=! 12, &: ?55 S &"> LC& 4 ""- -7 =5C5:! 121! 12M! 12N &: ?<99&<>5 <"B <C59:&-"" - 4&: 6&75! 1,+ 55: 9 <9"5:! 1,1 5;9-<A45: 4<9=5: # ! 2, (4D5: AC59 895: - 9<"A&: !! 1,3 59?<"" 9&"A5:7<=! <6< 79-?& 4&?! 13+ 5<9&5: -7 4&: ?<99&<>5! 1N+!E 2** &: ?<99&<>5 B&::-=C5B! 2*1 &: 6<" -7 >5"59-:& - =&5 8D5 -7 =-C5:! 2*N! 2.. &:; -=&A -6<9B: A- S =<"B! &C M ==&<"A5 6& 4! ** ! *, &: <">59 -6<9B: (<9><95 ! .F "B D&"BS "5: -! 11 &: ?5::<>5 - <?5: J &@ <B=59! 2*! 2F &< =5 59 - 95 ! B5;8 -7 95=<"B! N*! NN (<B5 &">-7 95=<"B! *+1 (<99&5: < 459&"5 -6<9B! *+, &: A-"B8A - < <"B <==-;! **2 E &: ;9->95:: &" -9D:4&95! *.F < 459&"5 -6<9B <"B 4&: ?&:7-9 8"5:&"" ?<99&5B =&75! *.M! *.3! *F. -?;<::&-"" 7-9! *FM! *F3 (<99&5: < 459&"5 899! <B <&?59! *1F &:?<"&75: - A- S =<"B! *3+! *32 &:; -:&&-"" &"" *2*.! *N2 9-;-:5: =&5 ?<99&<>5 -7 B6<9B <"B (&&9 8<9 ! .+2 5A5&C5B J (<9 -7 8&:5! ..F &: 95< 99& 4 A-=<"B! .FF! .F1 <9": B&!J89>4! .1F &: ?5::<>5 - 45 A- A4! .13! .M* :&"7&9?! .MF -"A=8B5:< 95< 'E6& 4 45 ?;&95! .M3! .2*! .2. &: B5?<"B:79-?9<"A5! ,*! , , <C5: 9<"?59 79-?<9B&"59! .N1 "W8&95: <: - 45 &"B:-9 ;59S :5A8&-"! .N,!$F+F 95;<95: - &"C<B- A-=<"B! F*+! F*F &: A-"C5"&-"" 6& 4 45 A- A4 5<9=:! F*F! F*1! F*M "" 5 -"! F*N!F.+" 8:;5A :45 ?;59-9! FF+!FF2! FFN 9-::5: - 9<"A5! <"B <D5: 4-A-?2<"B! F1F! F12! F1,! F2+ <D5: -8=->"5! FM1 ":659: 4<9=5: # ! FM+ 5 89":- -?=<"B! F2, &:<">9 '=5 59 - -97-=D! F23 9& 5: - 4<9=5: # ! F, , &: ?5::<>5 - 45 8 459<"" ;9&"A5:! F33 &: B&:;8 5: 6& 4 4<9=5: # ! 1+. &:=5<>85 6& 4 59?<" ! 1+M! 1+, &: A-"A5::&-":! 1** &: ;-;8=<9& &"" <= ! 1*M -9:?-8 4! 1.1 ": 98A :<>5 ! 11M 5&I5: ;<"&:4 :4&;:! 11,! 12F!12N &:=5 59! - 9<"?59 -"" 45 & <"! 131 &: =<: <;;5<9<"A5 &"" <9=&<?5"! E 1N*! &: =<: ;;55A4! 1N.$1N1$ - &"A=&"5B - ;59:5A8 5! M+2 9-;-:5: 45 7-9?<&-"" -7

%

45' (=&9&: &8"' 5<>85!(M+, ' &:'&" 5"S &-":'-7 957-9 ?!' -+3' ==&:' ;<;59:' -"' =&5 8D5' -7' -97-=D' <"B' -9B' 8995 ! 2.*' &:'B5" &=!' 2.1' ==&:' 6&=!' 2.M! 2.+' &:' ;9-C&:&-":'7-9' 45' >-C59" ?5" !' 2F+$MF.' &&:&& ?< 5' -7' 4&:' A4<9<5 89'&"' 45'>5"59<&-"" 64&A4' 7-=-65B' 4&?!' MFF' =-:&">' :8?S ?<9 ! MF2$M1+

5"9' !' &">'-7' 9<"A5!C'.F1" C&'1+!' 1*!' *1.!' =--!'.+*!'.+N!'.FN!F11!11+!' 11M"' &&' F.!' F1!' 2F!' *+2!' *+,!' *.F

5"9' !' &">'-7' 9<"A-' s '8 *' & -8 !' L&' 1,!' 13!' 13!1*1$1F.!1FM" 11,!' 113!12M!' 122!' 2*2!' M*,!' M.+!' 2.,'' L&&' ,.!',1!',!' 3+!' 3*!' 3F!' 31!' .N2!' FM2!' F3N!' 1.+!' 2.N

5"9' -7' <C< 9-' x<7 596<9B:' -"9' # ! &L' 1F3' ' F,,!' 3N1!' FN2!' FNN" L&' *.!' 13!' 2F!' 22!' M2!' *M*!' M.+!' 2.,'' L&&' 3F!' 3,&' 3N!' F3N!' 2F3!' 2*2' V

5"9' 45' <9B&"<' J5A-?5:' &">'-7' -9 8S ><=!' L&' *1*' !

5"9' -7' <:<8!' -8" ! D&==5B' <' (--D' 5< 4!' L&' *N' 0

5;J89'" -7' -= -"!' C&&& !F2M&' &:' 9&<=!' &L *N3' L5A8 5B!' *NN!'.+2

59J59 !' 3&9' #&P&<?!' C' *2N!' *31!' *N,!'.FN!' .1N!!F*.' - -9":' ">=<"B'6&4' <96&AD!' FMM' (<B5' <9-' -7' 5?J9-D5"!F,M" 1N*' &:' 5: <5:!' 123' &:' B-8J :!' C&' ..' 65<9:' -' (<9 "F*!F.!*2+!'*,2!' *N.'' ..M!' F11!' 1MN' "5' -7' <' A-?? &' 55' B' A-":8=' 06&4' =&I<J5 4!' C&&' .+' 0 &:' :59C&A5:' <"B' B&<&&<A 59!' 11' &:' :<&:7<A &-"'6&4' 5A&=@:' ;-=&A !' .2.' " 59 <&":' 45' A- &:4' A-?S ?&::&-"59:!' .NN' BC-A< 5:' <"' <=&<"A5' 6&4' 4-' ">85"-'=5<B59:!' F*,' "'7<C-89' -7' 45' :8AA5::&-"' -7' -9B' 8" &">B-"!' 1F+' &:' ;< 9&-&:?!' C&&&'.M!' 5<B' -' <D5" ";' <9?:!' &L' 1,+' 995: 5B!' 13+!' 133' &:' B575"A5!' 1N1!' 1NM' &:A=<&?:' : ?;< 4' 6&4' 45' 95J5=' =-9B:!' MF+' -??<"B:!'<"' <9?'7-9' 4-'x&"55"!' 2F+' &

5957-9B!' -;&:4' ;9<A &A5:'<!' C&&'!12N'k

595: !' "-C5=' ">=&A<"' A-": 98A &-"' -7!' <:' <;;=&5B' -'' 45' 8;95?<A !' &&&' .NM' 59$ 5A8 &-"' -7' 4-&5: !' F1+' -89' 7 4595: ' 5: <J=&:45B!' F3M' 595: '&"' A-=<"B!' &C' M,!' .1,' &=='<><&":'&'<-?; -B'&"$ ">S =<"B!' 1N+' 45' 4595J 'A-??&:-&-"' <"B'&:' 6-9D!' #'*2,'' C&' 12M' <95B' -7' 4&=&;' -7' 4595: !' &L' F*F' 8: '&"R8"A &-":'-7' 4<9=5:' # !' F*F' 3*1

-=$5 &A-' -?J895"B-!' B5' A'-7' 5"9' # ! &&',+' 5;5<=5B!' C' 2F' 5$5"<A 5B!!' C&' 55 k

595 &A:!' A'&"'7<CJ89'-7!' ',+,' E

-C=5!' &=&<?!' ;9&:-"59'&"' 45' (<9:J< :5<!' .*3' &:'5?;=- ?5"' J' 5A&=!' E.*F' E &:'=5 59' -' 5A&=!' L&&' *F*'

59?&!' <!' < $F -C59!' &&&' .MN

59-"!' &=5:!' &&' 2+,

599&A:!' -9B!' &L' F.!' 1M' 5=5A 5B' -'A-"759' 6& 4'%855"' =&I<J5 4!' *22' 5--&C5:'?-"5' 79-?' A9-;5!' *2,' -&A5'-7'4&?!' *2,'(*$' &5';9-5:'$&"!$ <9=&<?5" !' .+F' <&:5:'<B&: 89J<"A5'-"' 4-' -9B59:!' . .*!' -">$' :&B5!' . .M' -==-6:' = 5 %855"' -' 4-' -=$ k 6<! . .3' "B' A9-::5:' 6& 4' 459' &" -' ">=<"B!' .F.' <9=&:=5!' .1+' 5"' -' -"B-"!' .13' &:' -?J-99-::?5" :!' .M2' &:' ;9-5:' -' %855"' =&I<J5 4!' .M2' &:' 495<:!' .MN' "B' 95?-": 9<"A5:!' .2+' <D5:' J<AD' 59?:' 79-?' =&I<J5 4!' .22' &:' =5 59' -' JW' ">=&:4' -8"A&=!' .,1' &:' <":659' -' =&5' A4<9>5:' <><&":' 45' %855"' -7' A-:!' .1F' =&<=5">5' J5 655"' 4&?' <"B' &"B:<!' F3M' -"79-" 5B' 6& 4' (8&9<!' F33' 5"' -' B&"J89>4' <:=5' J' (8"$<V 1M,' -&":' 45' 95"A4'7<A &-"' <' -89!' L&' .2,' &

59 7-9B!' -9B' 4' 5 ?-89'

59 7-9B!' -9B!' :-"' -7& 45'=<:!' R\5 5 ?-89' 5::5!' <"B>9<C5'-7!' 6<9":' 5"9' #P !' &&&' FF3" &C' .23!' F33!' 1+2!' 1*2' <D5:' 45' 7&5=B' <><&":' 4<9=5:' # !' #'*N' 5' 7955!' 1+3

&>7-9B!' 8D5'-7' -97-=D@:' :5A95 <9 !' L!' .3N$ .N*

&>=&>< 5!' %855"' =&I<J5 4' <H$C&' *,'

&>4=<"B59:' -7' 9> =5:4&95' &"C<B5' 95=<"B!' L&&f' .++' 575< 5B' J' &">4<?!' .+.'

&>46< ?5"' &"' 45' 95&>"' -7' =&I<J5 4!' C&&R' ! 12+

&==!' &9' -6=<"B!' 5"B-6:'<':A4--=<' 9< S -"!' #',,N

&=:5 !' -4"!' &:4-;' -7' -A45: 59!' &&&$*+M!' k F22

&= -"!' &9' 4-?<:!' &&&!' *M2'

-J !' &9' 4&=&;!' &C'.N+" C'.F,'!.1F!' FF3!' 13,'p C&!' *F,' &:'<AA-8"'-7' =&<9=5:' # !' 13,' &:'-;&"&-"' -7' -"<9B!' 133'

-A8:' -A8:!' B59&C8&&-"' -7' 45' 59?!' C' N,'

-=J5&"!'$ <":!' &&&' 11.'

-=>< 5!' -J59 !' B5;9&C5B!' -7' 45':55'-7' -9D!' C&' ,3'

-==<"B" =&I<J5 4!!' 459' 5C&B5"A5' <><&":' -9B' 8995 !' &C'EM*2' !

-=<"B!' J' 4-?<"!' <>5"' -7' 45' -=5:!' <9S 95: 5B!' &&&' F.M E

-=: 5&"!' 8D5'-7!' &C' 1+M !

-=!' 8?;495 !' C' .M*

-=!' 4-' 5:8&!' L&' 1,2!' 1,,!' M1N

-= 9--B' 8=<55!' (<9' 8<9@:'95 89"' -!' C&& k F2M!' E =<"' -7' 459' 9--?:!' C&&&' .M+' '" 45' ?-9"&">' -7' -465==@:' 9&<=!' &L' 1F' -?&=&5:!' --D' -7!' &::85B!' C' F3

-"&-"!' C' ,M!' *N*

B5' @ ;&<=!' (' A-?5:' -"' <"'5?J<:' -' ">=<"B!' L&&' 1*,' &:'=5 59' -' 89>4=5 !' 1*3' &:' "5>-&<&-":'-"' J54<=7!-7' <S C<995" 1*3

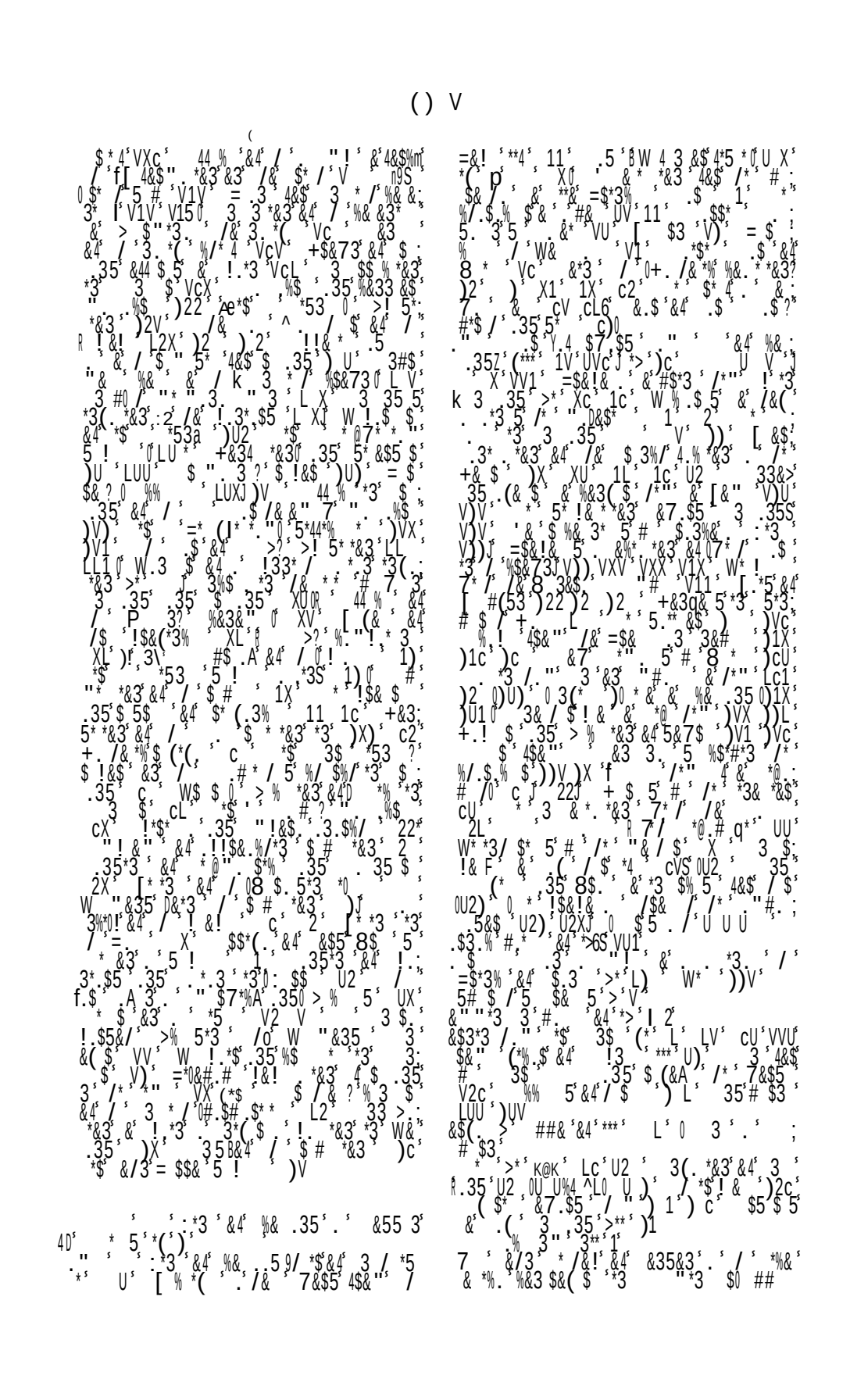
--;59!' -4"!' 4&:'=5 59' -!' 8=="&">59' -"

45 4595:&5: -7 ">=<"B! *2F (<B5 &:4-:; -7 =-8A5: 59! F*+ 5"-8"A5:
45 -":5A9< &-"" 59C&A5! F.* &:: C&-=5"A5 <J-8 C5: ?5" :! F.M! F.2 5;9&C5B <"B
&?;9&:-"5B! C& ,3! . . . &: : <&"=5::
A4<9<A 59! F*M &: 9&<=! F*, 5" -
=-8A5: 59! F*N &:" &" 59C&56 6& 4 &9
&">: -"! F.* &:: ?<9 9B-?! F..!
F.F &: ;<9 &">=5 59 -: =&:: 79&5"B:!
F.F! F.M
-; -"! &9 &=&<?! &58 5"<" -7 45 -659!
.*,! .N1
-9"! -8" ! C& *N*!.F* ;;-:5: ;<"&:4
-;;95::&-"! &L F*2 995: 5B J =C<!
F*N L5A8 5B! F.+
-9"5! -J59 !: &:=&-;-7 &"A45: 59! <45
45-=->&A<= A-" 9-C59: <5 :: ?&": 59!
C&& ,F! ,1 5"B59: 45 -<4 -7 <=5S
>&<"A5 -" -""59! 1N*
-9:5 ! B6<9B! C&& *M1 5A-?5: &9
B6<9B! 1F, 5<B: =&" -"@: A<C<=9 &"
45 -9 4! &L MF3 5" -" -"" -4"" -7
8: 9&<! L& 2*
-:;& <=& ! 45>=-9 -7!@ &"" ">=<"B! &1M
-:;& <=: -7 45 <C- ! 4-?<:! <"B
<9 4-=-?56 7-8"B5B! C FN2
-8:54-=B! 9- <=! 5L;5":5: -7! 8"B59 45
8B-9:! &FN
-6<9B! <459&"5! 459 ?<99&<>5 6& 4 5"9
!&C *+, &:A-C59 -7 459 ?&:A-"S
B8A ! *.2! *F+ &=: -7 < <&"B59 <><&":
459 &" 9-B8A5B! *F3 5" 5"A5B -B5< 4!
<"B <D5"" -5 45 -659! *1* 59;5"&S
5"A5 <"B 5L5A8 &-"! *1*! *1.
-6<9B! 4-?<:! 4&9B 8D5 -7 -97-PA
4&:; -659! & *2, " && *. ,! *2. ;;-& 5B
5;8 -7 95=<"B! .,M! .,3! F.M &:
=5 59 -5"9 # !1N+ 9&5: ""5
-=5 "! M+2! M*M! M*3 -5: <><&": 45
-9 459"95J5=:! &&& *1F! *11!*2N!*,1! *NM!
.+*! .+F! .*M! .*2! ..F ;5": 45 B&:S
A8::&-"" -"" 45 &L 9 &A=5:! 9 *MFN!
F33 "" A-=<"B! &C **! *1 575<:
=J<" ! *M! .*! ..! M. "" 9-?65=!
*+M! *+2! *F3 "" 9<"A5! F1+! F2,! F23!
F,.! 1.+! 1M.! 1NM! M*+ 995: 5B! M*M!
M*, &:A-"75::&-"! M*3 <&" 5B! M.F
"" 45 -659! C M*F 5: -95B -5 45
-8"A&=J (<9 ! C& 1M!M+
-6<9B! <9=-7 8995 x 45;-5 ! 4&:79&5"B$
:=&&;6& 4 45 8D5 -7 &A4?-"B! & FN,
&&& FM+ :A-"A59"5B! &"" <-"B-"" 9&-!
&C .M1! .MM! 1M. 575<5B< &5""5!
M** &W A4<9<A 59<"B<::8?;&-"! M*+!
M** &"5::5: <><&": 4&?! M*.! M*M
9&5B<"B 5L5A8 5B! M..
-6<9B! 4-?<:! 7-89 4 8D5 -7 -97-=D!
C&& *1M! *1N! *M3! .,N! F.3 578:5: 45
A-?2<"B -7 45<9? 7-9 45 "-9 4! *22
8<7 596<9B:"8"B59 <D5:& !*,+!*3.!*3,!
.+2 8:;5A 5B! .+3 5"B:4&:<9? 7-9$
6<9B! .*. 5?<&"6& 4 45 95:59C5 <
56A<: =5! .*.! .*2 5<9: -7 =&57<&=895
< 5& 4! <"B :5"B: 95&"7-9A5?5" :! .FF!
.F2 &: W8<995= 6& 4 -9B 5&A5: 59!
C&&& *1F (*$ "" 45 A-?2&::&-"" 7-9
&"C5: &>< &">" 45 <9"=5 7?89B59! &L .,,
95:&B5" -7 45 A-?2&::&-"! .,N 9-S
;-:<= -2<" 4&2 -" 45 %855"" -7 A- :!
.3+! FF*! .3N #&:&-7 45 %855"" -4&2
< 45 4<9 594-8:5! F.1 &: A=<&2 -" =&5
<A95: 5: <5:! F,*! F,.! 113 &: A-?S
?8"&A<&-": 6& 4 -"" 85"&B! 1*,! 1*N
<L5B J 45 %855"" -: -" =&5 A-A4 ?<9S
9&<>5! 1.. -":5" -7;<&@-7 45 -8"A&=
-4&: ?<99&<>5 6& 4 (<9 8<9! 1.M!
1.,! 1.3! 11+! 11*! 11.! 113 45 %855""
-7 A- :@<": 65@ <: -4&:;9-;-:5B ?<9S
9&<>5 -459! 1MM 8:;5A &B J 5A&=!
12N &: &?&B&! 1,1 45 ?<99&<>5
7-9J&BB5"" J 45 %855"! 1,3 5<C5: =&5
-89! 1,N 8??-"5B -95 89"! 13+
5:& <5:! 13* -5: -"&">4<=! 13.
5 89":! <"B &: <"&A: 5A$! 131! 13M A8
-45 -659! 132! 13, &: ;9-?&:5:!
1N," MM 5>: 7-9 4&: 95=5<:5! ,F
&J59< 5B! 3. 95<D: 4&: ;9-?&:5! **3
5A&=@: C&56 -7 4&: ?899&">-! *.*-9S
7-=D@: ;<9 &"" <"56 <4-=&A A-":;&9<A !
*M2! *M,$ &:&": 98A &-":- &B-=7&! *2M!
22 &B-=7&@: =5 59 -4&?! .+N! .+ (*$
5A5&C5: ?-"5 79-?45 ;<"&:4 <?J<:S
:<B-9! .N+ 995: -7 4&: :5A95 <9&5:! .N+
995: 5B J <B=59! .N* 5" -45 -659!
.N. -J5 J9-8>4 -9&<=! F+, 559:
<;;-& 5B -9 4&?! F*N &: 9&<=! F..
-"B5?"5B! F., 5&&-"" &"" 7-9?79-?
<9=&<?5" 7-9 4&: B5< 4! F2M L5A8 5B!
F22! 2.*
-6<9B! 4&=&;! <9= -7 "?B5=! 95A-"A&=5B
-45 5:8&:! L& FF*5" -45 9-659!
2*2" L&& **M! **2 9< :7-9 45 :8AA5::
-7 45 9?<B<! 1FF
-6<9B -7 77&">4<?! -9B #&=&<?! :-"" -7
4-?<:! :5A-"B 8D5! (<9:4<= -7 ">S
=<"B! & 12F "" x A-=<"B! &C F, 5"
-<9&:! **+! *M2" C M+, " C& 1+! *1*!
*M,! *21! *, .! .*1! .*M 9-5A :=&I<S
J5 4! .*,! ..M! .F.! F.N!FM,! 112! 1,2"
C&& 11 <?J9< ! 2+ &:-;&"&-"" -7
45 %855"! *1+ "" 7<C-89 -7 45 8: 9&<""
?<99&<>5! *1M
-6<9B -7 77&">4<?! -9B 4<9=5:! :-"" -7
45 <J-C5! ;95C<&=:-"" =&I<J5 4 -
(<9 @: 6<99<" ! L&& F.F B?&9<= -7 45
7=55 ! 1FF! 1FM! 1F2! 1FN 8 :-:5< -
?55 45 9?<B<! 11+ 45 5"><>5?5"
-77 =?-8 4! 12+ 8;:&5: 4&: 7=55 78-?
45 95:-89A5: -7 45 ;<"&<9B:! 1+F &>4
< -9=<"B! 121$12N "A4-9: &"" <=<&:
-<B:! 1,+ -=B: <A-8"A&= -7 6<9! 1,M
45 7&95:4&;: <"B 45&9 5775A ! 1,M <;$

=895:' (-"N"B8@' :4&;f 1, ,' =&":-' 45'
;<"&<9B:f 131' -989":' -' (<9>< 5f 1N*'
&: 95::' -7 4&:' 7=55 f 1+*' 575"B:' 4&?S
:5=7 <><&":' 45' A4<9>5' -7 ;5A8=<&-"f
1N3
-6<9Bf -9B' 5"9 f L&' ,1'
-6<9Bf -9B' 4-?<:f A-" 9<A 5B' -' <B '
(<9><95' -8><:f &' M.N' (<B5' -9B'
-6<9B' -7 &"B5"f C&&' 1+'
-6<9Bf &9 5-9>5f <' B&&&J8&>4f C&&' .*1f
.*M' -5:' -' "B-"' 7-9'&": 98A&-":f .*M
8J59 f &A4-=<:' x-9' 4:9-"A4' <9&: f C&&&' FMF
(*$ ' F2*f F+ ,' &:' B5;-:&&-":f &L' 1' (*$ '
12*' L5A8 5Bf 1' (*$ '
8>85"-:' 4 ' -"BB' -=&>" ' 5"9 '-7
<C<99-
8&ADf <';=& :&A&<"f 4&:' <":659:' -' 45'&"W8&S
:& -9:'&"' -"B-"f &C' 1N,'
8?5f -9Bf ?55:' 49->?-9 -"f &L' *.. '
-&":' =&5 ->5" '6& 4"&5"f ....' -8"B5B'
<' <">:&B5f ..M'Q' "' B&"J89>4' <: =5f
' 1M3f 123' 8995"B59:f 12N'
8?79- f 9 !C&&&'.NF
8">597-9Bf <; <&"f &"' 95=<"B:f L' M*+f M*.'
8">597-9Bf <B f &&&' 1N2'
8" :B-"f -9B' 4 ' <95 f &9 5"9 '
8" 59f &=:&<?f 4&:' : -9 ' <"B' "&<9 R B-?!
C&' FF1$FF2
8" &">B-"f <9=-7f &&&' *1F' C' .2*' C&' *2Mf
*23f *3.f ..Mf .,+" C&&' .3+f .N*f .N.f
1.3f 1F+' &L' 121f 12N' <D5:' A8: -B '-7
45' %d8A5"' -7' A- :f 13+' -&":' 4956:S
J89' <' 8&J89 f M.M" V' 3,' .&' .3Mf
.3,f .33f .NF
8" = f <9=-7f &C' 3' -"'J<AD' J 'B@ :5=!
C&&' *.3' &:' B57&<"A5' -7' 45$?-J:f F,M'
5;9&C5B' -7' 45' =<"B:' -7' (899< f F,3'
&:' ;-=&A f 11F' 578:5:' -' ;<9' 6& 4'
45' =<"B:' -7' (899< f 11F' L;5B&-"' -7'
=&' %855"' -7' A- :' <><&":' 4&?f 11M'
<D5"' <' -99&A=&&5' 89"f 113' &:' B5< 4f
113
8" = f <B f 6&75' -7' 45' <J-C5f C&&' 11,'
8" = f <&=-7' x:-" -7' 45' <J-C5 f 5:A<;5:'
79-?' -= 9--B:f C&&&'.M2' 5: -95B' -' 4&:'
5:<5:f F1M" &L' F3f M*' ' 45' >< 459S
&">' <' <?&=-"f .*1' 9-A=<&?:' (<9 '
8<9' &" 45' -9 4f 1M,' 45' 5>5" @:'
5L;5B&-"' <><&":' 4&?f 1MN' ;<"&:4'
-7&A59:' $6& 4 4&?f L' 3,' <&" 5B' J' 45'
-9B:' <' &9=&">f :3.' ' 45' ;<A&7&A<S
&-"' -7' 59 4f 12+' ' -89' -7' <?5:'
# !f L&&' *+M
89=5 f 9A4J&:4-;f L&' .2.' -9 895B' <"B'
4<">5Bf .21
8::5 f -9Bf >9<"B:-"' -7' 9&"A5:' (<9 f &&'
@ *2,' ' =-7-9B' <: =5f &&&' *+*' s '
&=>9&?<>5' -7' 9<A5' &:' C<A&=< &">'
A-"B8A f *+N!f ***' L5A8 5Bf .*1'
8 -"f &&&'.,'
B-'=< B5f &9' <?5:f &&' F.*

' f f A<; 895B' J' 9<D5f L&&' *1N
A5=<"B' 7=55 f =&Af &&&' .M+" C&&&' 1.F
?<>5:f A' <><&": f C' .M3' :' 5775A' &"'
95=<"Bf 1**
"A4D&5 =&f 95"A4' 9--;:f C&&' *32f *FNf ..2
"A-?5:' -7' 45' 4&>459'A=<::5:'&"' 45':& L A5" 4'
A5" 89 f &' F3 '
">=-7&-=B:f 9&'
">-=B:J :f 45f &&&' *M+'
"W8&:&&-"f C&' *N,f .NM' :' 95< ?5" ' -7'
">=&:4' :<&=-9:f C&&& $
Q ": &8&-"' -7' 45' 49&: &<"' (<"!f 45f ;95S
:5" 5B' J' 5"9 '#P ' -' 4<9=5:' #f &C'
F++
" 59&?f 45f C'N.' (&>BAJ89>' 4-=B:' -8'
<><&": '&f .N,f 1+*
B@ " 5$C&=5f 95"A4' <?J<:f<B-9' -' 5"9 '
f &' 11* '@&&' *2.' &:' =5 59' -' <9S
B&"<' -89"-"' -"' 45' : - -' -7' ">=<"Bf
*3Ff 13M
"C59"5::f C&:&' -7' 45' %855"' -7' A-:' -f C&&'
11Mf 112
; 6&A4f :A5"5' <' 45' 5L5A8&-":' <f &&&' F,'
95=<"Bf :<5' -7f &' FNF" &&' .1N' 45' -9S
?<" A-"W85:' -7f .M+' 45' ">=&:4' <=-'
&"f .2*' (&:59' -7' 45';5-;=5f .2,' 45'
95J5=&-" 8"B59' -9B' 4-?<:' & >59<Bf
.N,' F.+f F.M' 95:4' B&: 89J<"A5:f &C' 22$'
*+1" #',M' <5' -7' 45' A-8" 9' 8"B59'
&9' B6<9B' 5=&">4<?f 1*M!' 1.+' -"S
:;&9<A' -7' 45' A4&57:f 1.*' :<J=&:4?5"'
-7'<?&" f 1.F' &&775&&">:' 79-?' J<:5 A-&"f
1.Nf 1F2' -"B&-"f -7' 45' A-8" 9' 8"B59'
%855"' (<9 f C&&&' *' <J& :' <"B' A4<9<A 59'
-7' 45';5-;=5f .' :;5A&<=' 695 A45B"5::'
-7' 45' <=5!f F' 1' 45' 95;-9' -7' *M2N!' 2'
2' =&5<BC<"A5:' -7' 45' A4&57:' B5A=&"5B' J'
45' &">' -7' ;<&"f N' 45' A- &:4' :5 S
=59:'&"' " 9&?f'*+' "' 9&:4' @>5" &5?<"!@
**f *,' 5 59' -' %855"' =&I<J5 4f **!*,'
575<:' 45' ">=&:4f .1' 4<"' @ 5&=f:'
;-659f F,' 8::5L@:' 5L;5B&-"' &" -' P=:59'
<><&":' 4&?f 11f &9' 4-?<:' 8:<D:'
:A45?5'7-9' ;<A&7&A<&-"f 1,f 13' 5?;'
-' "::<::&"<5 @ 5Pf 1N' "W8&9'&" -'
45' B&:-9B59:' -7' 45$ <=5f M1' 5;-9'-7'
45'A-?2&::&-"59:f 2M' 5:-=<&-"' -7' (8"S
:59f M2f f:2,' 5A&=@:' :<5?5" ' -7' =&5
5L;5":5:' -7' 45' 9&:4' 6<9f F+2' =&5'
">=&:4' <9?' &"' 95=<"Bf F,.' &9' &AS
4-=<:' 9"-=Bf F,.' F,F' -"B&-"' -7' 45'
A-8" 9 f F,Mf F33' 9&:4' ;-=&A' -7' 45'
f 8B-9' :-C595&>":f F,M' 9-R5A' 7-9' 9&:4'
957-9?f F,2' 4955' ;9&?<5:f F,3' &9'
&B"5' ?<B5' B5;8 f F3F" F31' LS
;5":5:' -7' 45' >-C59" ?5" f F31' &B"5 @:'
$;-=&A f F3M' =&:' ;=<"' 7-9' < A<?;<&>"f
FN3' 95=<"Bf 95A-C595B' 7-9' 45' ">=&:4'
A9-64!!1.*' &9<5:' -"' 45' 9&:4' A-<:f
12F' <5' -7' 45' A-8" 9' <7 59' 45' B5<4'
-7' 4<"' @ 5&=f L' 1,2' 5;-9'-7' &5>-

( ) V



#

<:A-==5:! 45! &&& *M+
":A5==5:! 49&: -;459!C&&& .3+! .3*
<:A-==5:! 5-9>5! &&& F*,
<:A5==-:! -4"! ;59:5A8 &-" -7! 1N3
<:A-==5:! 4-?<:! &C *+2! *.2! *.,
$&&?-9! -9B! &&& *FM 5C&P-
<&?59! 8>4! 4&: :59?-"!&, " 95" !
.M -:- ! *+. &:A<9<A 59! .31
=59> 6&:4 - J8?4&?!F1N &:;95<A4S
&">!F,, " && N3" &&& 2,! 2+ 57-95 -=$
:5 ! && 1+ &: 5<9= =&75!NM : ?<B5
9- <= A=&<;=<&"! *++ " 59A5B5: 7-9 9-S
5:<" :! *+*!*+. & 5B J57-95 -D5:=5 !
+F$+M <C5B J 45 &">! *+, "
A-"75::&-"!FF, " <"<J<;&: :!F3M "
A489A4 ;9-;59 ! 12F (<B5 J&:4-; -7
-9A5: 59! 1,+ &: :59?-" < <8=▯:
9-::! 1,. &: =5 59:! &&& .2*j .3N
95<A=&5: < 9&<9 -95:▯: B5< 4! .N,
45 5<= 95:5"A5! F3N 5:&>": 4&:
J&:4-;9&A! 1+, &==5B J57-95 45 -8"A&=!
&C 1N2! 1N, <?5: -7 4&: 5L<?&"59:!
1N3 &:A-?;<9<&C5&"B&=7595"A5 -B-AS
9&"5:!# N3 &: :59?-": -7 45 =-8>4!
**1 &"&-" -7 5 ?-89! *M.! *M2 &:
:59?-"$ -" 45 >5"59<= A-& 8;&-"!.,M
&=="- 5:A<;5!C&,N $ 5" - 45 -659
<"B - L7-9B! *N2! ... &: =5 59 -
(9 &P&<?:-"! F,N &: <;;5<9<"A5!
F3. &: A4<9<A 59! &Y ?<9 9S
B-?!F31!F3,
<895"A5! -9 895B<;B ?<9 95B!C& FF1
B5 <8 95A! 4&:B5< 4!& *1M
<6:!:8?;8<9!&" 45 *2 4 A5" 89 !&*M
<5-7 45$A9&?&"<= =<6:&" "><"B!&&&
1**$1*N 45 =<6:-7 J5"57&-7 A=59>
<"B::"A 8<9 1**!1*,
<6:-"! <?5:!J&:59?-"!L& M+F
<-"! -9 5 -&&! 5AA=5:&<:&A<= A-??&:S
:&-"59!&& 1F3 L7-9B! 11+ 49-8>4
"><"B! 111 <"H=5" JJ5 !112
95:5": 45 =<AD --D-7 45 -??&:S
:&-"!12+ 5" - -9D:4&95! &&& N2 &:
A-?;=<&":!N, =5<B:7-975=-":< 56$
=5 ! 1*3 =<:-"J89 ! 1F*! &:
B5< 4!&C FF2
<-"! &9 9&<"!&C FN, &==5B! 1+
5<>85-7 45 <4-=&A;-659:!;9-R5A 5B!C&&
F+2 -9?5B!C&&& .FM
5<>85J5 655" "><"B<"B 9<"A-<><&":
;<&"7-9?5B!L .F2
5<>85! -= ! ;9-A55B&">:!L& 3+$
F3N
55! B6<9B! 9A4J&:4-;-7 -9D!& .M,
<9": 5"9 # <>&&": "B<==▯: &J=5!
&& F* -?795!&&& *13$*,M
55! -=<"B! &:4-;-7 &A47&5=B! -9B <9$
B5" -7 45 5=:4 (<9A45:!& 1*3 &:
=5 59:!<"B A89&-8: <AA-&? : -7 4&?!&&&
1*N!1.F
"" <" (%!--G

55A4!-"5-7 45 ?89B5959:-7 45 -?59:5
459<=B!&C .+1
5>J-89"5!&&& *+F
5>4!5AA=5:&<:&A<=A-??&::&-"59 x6& 4 < $
-"! && 1F3 &&& N2!N,
5&A5:59! &&9=-7 8B=5!-9B -J59
5&A5:59! <B!?89B595B!L&& 1N,
5&>4-"!-7 49-;:=&&95!< =<C&$-!C&& 1.M
5&>4-"!(9!:5" - A-=<"B!&L .*3
5&9?-8 4! &9 <?5:!&C .*2
5& 4!&C F.F <AD5B J 45 ">=&:4!F.2
5B8;&5B J 95"A4 9--;:!C&& *.3!*F3!
M 95">4-7 45;=<A5!.*F!.*1 5S
:&5>5B J 45 ">=&:4<"B A-:!..F &
4&9B-7 45 -6" J89"!..N!.F+ &:95::
-7 45 95"A4><99&:-"!.1+!.1* 4-
5C<A8<5 5&4!<"B:<=-7 9 9<"A5!.2.0
<"B&">-7 45%855"-7 A-:<!F2M
5&4 -<B:-AA8;&5B J 45 ">=&:4 7=55!
C&& *N* &
5"->4! &9=->4 @ 5&=! &9=->4 A"->4
5""-L! <9=-7!&C .* &==5B!F*
5""-L! <9=-7x:-"-7 45<J-C5!R-&": 45
">=&:4;<9! &C F*F (<99&5: <B
(<9><95 -8>=<:!<"B &:7<=&59-7 <9"$
=5!FN, =<&?: 45 :8AA5::&-" - 45
49-"5-7 A-=<"B!C& F.N 5" - 45
-659!F33 JR5A &-":-4&?&" A-=<"B!
C&&& 3* "B5<C-89:-95A-C59 4&:9<"D
<"B 5:<5:!3* ==-65B -95 89" -
A-=<"B!N1 &:9&J8 5:;95:5":< -=$
9--B!*+* -5:-7 4&:79&5"B:<"B 5"5S
?&5:!**N *1N!*M+ 9B595B J
=&I<J5 4 -95 89" - ">=<"B!*,F!*,3
578:5:!*3F!.1* 5>=5A 5B J 45
A-89!.N3!.NN 5W8&95: 45%855"-7
A-:-<::5?J=5 45"-J&=&!&L *F
59:-":A4<9>5B J 4&?6& 4 45 ?89B59
-7 4&:-"!F1!1+!1* 9-5:?<B5 J
k 4&:59C<" 8"&">4<?!1, -=&65==
<AW8& 5B!1N 5""-L 5:A<;5:- ">S
=<"B!M* -9J&BB5" - J5;95:5"< 45
&"C5:&><&-"!&" - 45 <9"=5<?&"B59!
.,+ AA8:5:45%855"-7 A-:< 5:S
?&":59!F1* &4 989▯:<9?!L M3!
MN 5A-??5"B5B J %855" =&I<J5 4
7-9 5>5"!,M 5A=<95B 5>5"!,2 &:
B5:-=<5 A-B&&-"!.3* (<B5;9&:-"59
< &9=&">!.3F 4-!.31!.3M
5""-L! <9=-7< 8<9!:9<5
5""-L! <B (<9><95!&* **M
5""-L! -8"5::7 -8>=<:! <B
(<9><95
5""-L!4-8:5-7!9&&" 3.N
5H?"-!J< =5-7!L F11
5:=&5! -4"!:<J:5 -"!&C 1,2
5:=&5! -9?<"!(<:59-7 -45:xJ9-459
-7 45<J-C5!&C F*N" 1+*$ <D5: 45
A<:=5-7 "B956▯:!1,M
5:=&5! -4" x<7596<9B: &:4-;-7 -::!
:5" -"&"C&5(<9 8<9 - A-=<"B!C&&

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4

B-' --A! "B95<! &"' 4-?;<>" @:' &" 9&>85! :&&' * F! *2M
(' -9B:'-7' 45' -6' -?; < -!@ C&&&! .22'
-99<&"5! <9B&"<-' -7! <' 45' -">95::' -7'
<?J9< !' C&&' ' &:' <J&=& '<"B!<?J&S
&-"! *.'&' &:' =5 59' -' (<9 ' -7' 8&:5!
.+3' &:' <AA-8" " -7' =&-' A-":;&9<A ' -7'
?J-&:5! .+3' -7 ' -5:'79-?' <9&:' 6& 4'
(<9 ' 8<9 ! F+F' 5"B:' 459' -' <=<&:!
F2*' 45' A-"7595"A5'-7' -&:: ! F3*' 9-S
;-:5:' =&A' 9A4B8D5' 4<9=5:' <:' <'48:J<"B'
7-9' (<9 ' 8<9 ! M.*' 'L'*F! .FN'
-9&8&"5! 9<"A&:! 8D5' -7! &C' F1N' &:'
>R&=<"79 '<' -8=->"5! 11.'
-?&&"5! 8A45::'-7! C&'M.*' ' <?J9< !'
C&&'2+
-8>=&95<' <: =5! L&' .F*'
-&&:! 9&"A5'-7' -"B`' 4 ' -"BZ'
-8&:' -7' <::<8! -8" ! B575< 5B' <' 59<$'
"&&"A5"! &L'F.+' 95;<95:'7-9' <' B5:A5" '
-"' =&-' ;<"&:4' 9--;:' &"' 45' 5 459=<"B:!'
' *12' -?5:' -' -"B-"' 7-9' 45=;!.FM'
-5:' -' <9&:! .FM ' -&":'6& 4' 45' 8>85S
"-:' <"B' <D5:' (-":! F,M! F,2' (<D5:'
;95;<9< &-":' <><&":$' =C<! FNF' <;& 8S
=< 5:!&"' (-":! 1.1' &==5B' <' (--D'
==-&C 4! L&'*+' ṁ 0
-8 4! 9&:&">' <! &&&'*+F' ' &=>9&?<>5'-7'
9<A5
-8C<&"5! ">=&:4' 9578>55:' <!' L ⋮F,+! F,.!
1.,! 1F*
-C5=! 95>-9 ! &&' M+,'
8D5! &9' <= 59! &'M+2'
8&"=5 ! 5-9>5! &&&' NN! *N2' 5" ' ;' 45'
-659! .+M' L5A8 5B! ..* !! !
8?=- ! -9B! &L'122! 13+! 133'" L' ¡N! *3,!
! .+N! .*+' -7 ! .N1! .NM'
8"B ! &"' &75! C&:&' -7' 45' %855"' -7' A- :'
-' 45' =<&9B' -7! C&&& '*1F! .+'
8"B ' :<"B! &C' *21'
8 459! (<9 &"! &&' .3!! 1*3' " &C' 1*1'
8 459<" :! 5"9 '# '<"B' 45! &&' 1*3! {.F!
M.1' 8 459<"' B&C&"5:' :5" ' -' ">=<"B!
&&& ' FF3' 4&57:'-7' 45' ;<9 '&"' ">=<"B!
!F+.' (<D5'<BC<"A5:' -' 5"9 ' T ' &C'
F3+! F3,! F33' 45&9';9-5:' <><&":'! 45'
-8"A&=-7' 95" ! 1*2! 1M+' 8 459<"&:?'
&"' ">=<"B! C' N3' 8 459<"' A=59> ' 5LS
;5==5B' 79-?' 8>:J89>! 1+*' 8 459<"'
9&"A5:' B5?<"B' 45'=&J59< &-"'-7' 45' <"BS
9><C5'-7' 5::5! 1+2' ?J<::<B-9:' -' 45'
-8"A&=-7' 95" ! 1+2! 1+3'
7-9B' 9<">5! L&' F1.'
-"! &==&<?! &C' 1N'
:&">4<9<! 45' ;&9< 5! C&&&' 12F

▮ B% W' ; 2 '4&:' =<"B:' 7-975& 5B! L'
1N.' (89B59:' ">=&:4' :5 =59:! 1N,'
85:'7-9';<9B-"! M+,' "' 9?-"B:' 9<&"!
L&' ..F

(
("A<9 ! -<>4! &' 3,'
(Q -""A**! ==<: 59! C&=&' 1+1! 1*F!1*3'
(E -""5==! &==5:;&5! C&=&' 1*3' (89B59:'
@ 5&=! 1*N
(<A -""5P! -7' 45' :=5:! &' FNF'
(E -""5==! <?5:! :5 =5:' 6& 4' 4&:' 7-==-659:'
&"' 9A-""5=! C&&&' *+! *1' (<99&5:' 4&:'
B<8>4 59' -' P&5' @ 5&=' *1'
(<A -9<=B! 59<=B! &C' 3M'
(E -""5==! 45! C&&&' 1F'
(E -8"-==! 89&5J- `!&?;9&:-"5B!! C&&& ' F3+'
-=5":AB! 1*3' 8"&:45B' J ' 45E <9=' -7'
::5L! RW&' *3F' (5<"&">' -7' 4&:' "<?5! *3F'
(89B59' -7' 4&:'7<?&=' <' " J=&"! *3M'
(E 8 9A! A98:45B' J ' 4<"' @ 5&=! C&=&' 1'
575"B:' 4&?:5=7! 1F' &:' x A<=&! 1+2'
(<5 8>4! 5<>4! L' 2**' !
(<A 8>4:! ?<::<A95' -7' 45! L' M**'
(<AD<95=! 9 ' JJ-' -7' <9=&">:! &&&' *+M
<D5"';9&:-"59! **N' L5A8 5B! .*1'
(E 5C&"! 5&=! C&=&' 1*3! 1*N'
(<A (-99-8>4! &C' 32
(<5 45=&?' @ 5&=! &9' 9&<"! J&:' 9<&B:! L'
M1,!MMM! &:'&" 59C&56' 6& 4' ::5LK' MM2'
5 9< 5B! L&' *,,
(<5 6-5" '-7' 45' 75"?-9-' ?-8" <&":! L&
.M3' &==5B! .MN'
(<5 &P&<?! &C' *+F'
(<A &==&<?' ' 89D5
(<A>&"! (<89&A5! 9A4J&:4-;' -7' <:45=!
-7759:' 45' A9-6"$-7' 95=<"B' -' ;<&"! L'
1NM
(<B :-"! &9' B6<9B! &C' *+1! *+N'
(<>B<=5"' B5' #<=-&:! ?<99&5B' -' <?5:'#'-7'
A- =<"B! &C' 1F' 59' B5< 4! 1N'
(<>B5J89>! J5:&5>5B' J ' 8D5' (<89&A5! C
F+*' :'><=<"' B575"A5! FF1'
(<>5"8&:! 9&:4' A4&57! C&&&' 1*F'
(<>"8:! 9! 9A4J&:4-;' -7' -9D! &&&!*F1
"' A- =<"B! &C' ..! H1! .3! F+'
(<&B5"' 9<B=5 ! &"&W8& &5:' &"' 45' ?-"<&: 59'
!$&-7! &&' 112
B5' (<&"C&=5! (! L&' M.+'
(<&=<"B! 9! 45' =<AD' 9&<9! 4&:' 6&:45:!
$FF3' H
(<&=<"B! &=-&<?! 45' -8">59! 7-P-6:'
-4"' ! "-L! C&&!"*+M! *M2! *M3' ' 45'
A-"7595"A5' <' 596&AD! *N,! -5:! -'
-"B-"' ;' A-"759 E6& 4' 45' %855" <"B'
5A&=! *N3' & 4' 45' ">=&:4' <9? '&"'
A- =<"B! .*.' EH<?:' 5A&=-7' 45' B<">59:'
0-7' <"' 8"A59 <&"' ;-=&A' &"' A- =<"B! !.*M'
5A&=@:' -;&"&-"' -7' 4&?!/.MF' &:' B5:&95'
7-9' 45' 99<"' &?<99&">5! .23' %"' 45'
-"75::&-"' -7' <& 4! .,+! .,*' "' -"S
B-"' 6& 4' 45' A- &:4' -?? &::&-"59:! .NN'
&:' =5 59:' -' 5A&=-"' 45':<5'-7';<9 &5:'
&"' A- =<"B! EF..! F2.! F2F' 5:&95:' =&5'
!95A->"&&-"' -7' (<9 ! 8<9'<:'45&9'-7' 45'
">=&:4' A9-6"! F21! 4-:5"'-"5'!-'(<9 @:'
A4&77' E<BC&:59:' F2M"' F,F$' 9-;-:5:' <"

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X;

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&" 59C&56' J5 655"' =&-' 6-' %855":!' F, ,'
"B' 45'0 8"&-"' -7' 45'&:=5j' F,3!' FN+' "'
-"B-"!' 1+N' -'=-">59' 985' -' ">=<"B!'
1*3!'!1M+ _1M. ' -995: ; -"B5"A5' 6& 4' 5A&-'
<==-65B' -'A5<:5!' 1,1!' 1NF!1NM' " 59C&56:'
6& 4' 45' ;<"&:4' 8?J<::RRB-9!' 1N,!' M.1'
"5'-7' 45'A-?9<&::&-"A9:'7-9' 45'A-"7595"A5'
< ' 596&AD!' C&&&' *+M' &:' <">9 'A-"C59:<$'
! &-"' 6& 4' =&<"B-=:; 4!' *+3' &:' 4-;5:!' *+N'
&:' <J&=& &5:!' **+' &:' 7&"<-' B5?<"B:!' **F!'
**1' 5A&=@:' <": 659!' **1!' **M' (<& =<"B'
&R&<D5"' -77' J' 4&:' ?&: 95::!' **, ' 5" ' -'
=&I<J5 4' -' <""-8"A5' 45' <?=-' ?<9$'
9&<>5!' *1M' &:' A-?;=&A& '&"' 45' &II&-'
;=-!' .,+@ &:' 5L&=5!' .NM' <9B-"5B!' .N, '
><&"!'<'6-97!' F+. ' &>":'<'J-"B'7-9' 45'
B5: 98A&-"'-7' <9"=5!' F1, (<B5';9&:-"59'
J' -46B=!' &L'21' 4-'&" 5"B5B' -'D&==
4&?" 22' <C5B' J' 45'%855"!$2M' " 5"B:'
-'5:A<;5!' , .' 5<=:'<6<' -' &9=&">!' 3+'
! &:' A-"C59:< &-"' 6& =&' 45' %855"!' N1!' +M'
5"B:'<'=5 59' -' 5A&=!' *.+' ==:'-;&"&-"'
-7'%855"' =&I<J5 4!' *.3' &:'<BC&A5' -' 45'
-9B:'-7' -8"A&=!' *1. ' &:'<":659' -' 49->S
?-9-"!' *1N!' *M+' 45' =5>-"' :=&9&"D:'
79-?'4&?!' .+*!' .+. ' 9& 5:' -' 5A&=<7 59'
45' J< =5'-7' <">:&B5!' ..2' ' 45'A-?S
?&:;&-"'<' -9D!' .3N!' F33!' F3N' 5" ' -'
45' <: =5'-7' B&"J89>4!' 1, .!' MM*' 5$'
C&56' -7' 4&:' A<9559!' M1N' &:' 9&<=!' MM*'
&:' :5A95' A-995: ; -"B5"A5' 6& 4' 45' %855"'
-7' ">=<"B!' L' .*' AW8& 5B' -7' <==
A4<9>5:' <><&": '4&?!' .2$' BC-A< 5:' (<9'
E 8<9@:' 95: -9< &-"!' F.' ! &:' A-": <"'
-J?5A!' F.!' N+' &:'A-""5L&-"' 6& 4' "-L!'
F1' &:'=5 59' -' =&I<J5 4!' FM' &:'A-"S
5?; '7-9'459'65<D"5::!' 2. ' &:' =5 59' -'
8::5L!' 22' &:'A-995: ; -"B5"A5' 6& 4' 8:S
:5L'<:' -' 45'%855"' -7' A- :@95: -9< &-"!'
N+!' NN' &:' -7759:!' N+' =<&9' 4-=!'
3N!*++' &:'=5 59:' -' 45'%855"' -7' A- :!'
NN' "B' -' 45' &:4-;'-7' -::!' *++E AS
A8;&5:' B&"J89>4' 6& 4' 9<">5!' .,1!' .,M
E x -9D:' 8; -"' $%855"' =&I<J5 4!' .,2!' F12'
9-;<9< &-":' -' J5:&5>5' 4&?!' F1*' &:'&==S
"5::!' F1M' 1,*!' &:' B5:;-"B5"A!' 11+'
&5' =5 59' -' 45' %855"' -7' A- :!' 11+'
5:--C5:' -' 4-=B' 45$ A<: =5" 1M+!' "-L@:'
B &">'6<9"&">' -' 4&?!' 12F' =-AD<B5B'&"'
45' A<: =5!' 1M3' <; 895' -7' 45' A<: =5!'
123$ 8995"B59:' 8"A-"B& &W"<== !' 12N' &:'
B<">59' 79-?' 45' ?-J!' 1,*' &:' B5< 4!'
1, .
(<& =<"B!' -4"!' J9- 459' -7' 45'k 5A95 <9 !'
R-&":' 45' 95"A4'7<A &-"' <' <?5:@:' -89 !'
L&' .2,!' &:4-;'-7'$ 8"J=<"5' < 5?; :' -'
<::<::&"< 5'4&?!' L&&' 2. ,
(<=B5 :5"!' 9<"A&:!' L&' FN 0
(&BJ !' &9' &A4- &:!' 95:&B5" '-7' -""<8>4 !'
L&' *N2' &:' ;8"&:4?5" '-7' 45' 89D5:"
*N, ' &:' C&>-9-8:' ?5<:895:!' .*M' "

-:A-??-"!' .F+' 495< 5"5B' 4' 45'
89D5:!' .F*' 575< :' 45?!' .F1' A 89&&:'
-' ">=<"B!' .13
(<==5 !' 9!' C' FF2'
(<==-9 :!' 45!' &&&!' *2+'
(<=9<C59:!' -9B!' &C' **+'
(<"!' 9!' <?J<::<B-9' <' (<B9&B!' 5L;5=5B!
&L' F. ,
=<"A4A: -9!' :<"A 8<9' <!' &C' *1,'
(<""59:!' 5"9!' <9=-7' 8=<"B!' &&&' *1F'
C' *1,!' .+3' ' C&' 1NN
(<""59:!' B6<9B!' <9=-7' 8=<"B!'=5<B:' 45'
- &">4<?:4&95?8: 59:!' &L' M. .'
(<""-AD!' &C' *. ,'
(<":5==!' &9' &A5!' &&' F. .'
(<"87<A 89- !' ">=&:4!' A-998; &-":' <?-">!'
#' . ,1
(<"87&&A4&95:!' 5"9' # @:' 5"A-89<>5?5" '
-7!' &' M E =&5&9' 5"B5"A' -' 95?<&"' : <&-"S
<9 !' ,
(<"6--B!' (9' 8: &A5" 4&:' =5 59' -' (&=B?< !'
L&' 33'
'&')&,' %')F' '=' < ' <7' ' 7=' 555'
,!"#!6 ".!(#' F' 5 C' ,)"' -%-/,'&)#0
)' "4!.'4 +' 4 4 4'L3 " 6'. 47
F1*' 5>- &< &-":'7-9':8995"B59&">' (<9'
x 8<9' -' 4&?!' 111' &:' B5< 4!' 11,
(<9!' <9=-7!' :-"' -7' 45' <J-C5!' L&' E*. +'
(<D5:' 4&:' ;5<A5' 6& 4' 5""-L!' .N1' &:'
95<:-"' <"B' 5:A<;5!' 21N!' 2M+'
(<9<"-!' "5<9' 9&5: 5!$&C' *23E
("9J55D!' -4"!' &C' .N2'
(<9A5==8:' !' -;5!' 5=5A &-"' -7!' C&' F1.'
(<9A4?-"!' (!' =5"N-"@:' :5A95 <9!' L&' 1*F'
(<9><95' 8B-9' -7' ">=<"B!' 6&75' -7' <"&5:'
E# "' &C' M' 7 59'64-:5'B5< 4':45'?<99&5:'
45' <9=-7' ">8:!' ,!' *+!' *3!' *N!' .*' 85:'
K7-9' <' B&C-9A5!' .2!' F.' ' (<99&5:' (5$'
k 48A!' FF' ==' $95< 5B' J $' (5485"' 11'
;;5<=:' -' 5"9'# !' 11' &C-9A5B' J '
(5485"!' 1,$ 59';5"& 5" 'B5< 4!' 13'
(<9><95!' =<" <>-"5' -=5'
(<9><95!' 8A45::' -7' <9?<!' 459' =5 59' -'
4&=&;' E-"' <77<&9:' &"' ">=<"B!' C&&!$*, ,'
-?;=<&":' -7' ">=&:4' ;&9< 5:!' C&&& !1MM'
59' >-C59"?5" ' -7' 45' 5 459=<"B:!' &L'
EF*M' 8;59:5B5B' J' =C<!' F*,'
(<9><95!' 9&"A5::!' -7' 9<"A5!E ?<99&5B' -'
0 5"9'-7' <C<995!' L' F, ,!' FN1!' FN2'
(<9&5"EJ89>!' C&' .FN
(<9&==<A!' 95"A4' E<?J<::<B-9!' &&&' MF2'
#&:& 5B' J' 45' 8D5' -7' -97-=D!' &C' .M.!'
.22!' 2*,
=<' (<9D!' B?&9<=!' L' .FN!' .1+' 9B595B' -'
x=5<C5$ 45' 4<"5=!' F, *' <AD:'<' ;<"&:4'
7=55!' <"B' <D5:' 9&P5!' F, F!' F, 1'
(<LD4"?!' <' 59-858"-!' &C' . ,M'
(<9D&"7=5=B!' &D!' M*F' -9"&489:!' M22'
(<9D&"7&5=B!' -4"!':-"' -7' =&-'<J-C5!' 9&5B' J8'
;<9B-"5B!&L" 222
(<9W85! (' B-'=<!' :5"'79-?' 9<"A5'=-' %855"

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=&I7 J- 4f C&& ' *3+ ' -5: ' - ' A- =<"B f *3+ ' <; 895B 4595f *3+
R# <99&->- ' -7 =59> ' &==f C ' 2,f 23f *1.f
PF
="9:4f 5-9>5f ?<9 9f C& ' F1.
B- ' (<9 &>"5:f =<"B: ' < ' 5& 4f C&& ' *31 '
<: 5: ' 4- ' A-8" 9 ' 8;' - ' =<:>-6f *N* '
48 ' 8 ;' &"' 5& 4f ..2
(<9 &"f %855"@: ' ;9-A -9f < ' 9<"9<59@: ' 9&<=!
C& ' F, .
(<9 9f 5 59f C ' *1*f *12 ' -78:5: ' - ' 5"S
A-89<>5 - - ;59f F.Mf 11M ' 5<C5: ' ">S
=<"Bf C& ' ,2 ' &: ' 6&75@: ' J-B ' 5L48?5Bf
123
(<9 9:f 45 < 4-=&Af && ' A4<; ' &L ' 45 9-S
5: <" f C& ' FFFf FM@.f F3Nf FN*f 2*1f 2*2f
3*,
(<9 -:5f =-: : ' -7 45f &C ' 1.3
(<9 ' 8B-9f 9&"A5: : f & ' **. ' 59 =5>& &?<A '
B&: ;8 5Bf **2f 1,2f ' 56' <==f && ' *22 '
* ' - ' J5f B&:&"459& 5Bf *2, ' -9 ?5::<>- ' -
45 &">f *2, ' 8"' -7 5" ' <"Bf *,3 ' -
?<99 ' 45 <8;4&"f *3. ' 59 4-8:54-=B
J9-D5"' 8;f *3N ' 77595B J ' 4<9=5:' # '
- ' 45 8D5 ' -7 ">-8=5?5f F2F ' 8J?& : '
- ' 459 7< 459f &&& ' .,F ' - ' % ' - "'
-8&:f -7 -9 8><=f .,2 ' 9 4- ' 8D-7 -7
9=5<":f &C ' *2.f *2N ' 578:5: ' 45 9< 59
--Df # *23f *3+ ' (5B& <5:' 5:A<;&">- ' -
=<"B59:f F+* ' " 59:' -"B-"' &"' : <5f
F.N ' &== "- ' &5=B <J-8 ' (<::f FF+ '
45 -8"A&= &":&: f FM2f FMN ' 59 4955
-77&A59:' &?;9&:-"5Bf F2+f F2M ' 5A5&C5:' <
B5;8<&-"' 79-?' 4- -8"A&=f F2*f F22 '
59 <;;5<9<"A5 <"B A4<9<A 59f F22 ' 59
;-;8=<&$& f 13Nf 1N* ' =<"' -' A<; 895 459f
1N, ' 5A=<95B &==5>& &?<5 J ' B6<9B!
2+2f M*Ff 2*2 ' =&5: ' - ' 9<?=&">4<?f
C& ' . ' 9-A=<&?:' 459:5=7 %855"f *F ' 59
=5 59 -' 45 -9B:f *Ff *3 ' <&=-9:I<"B
9--;:' B5A=<95 7-9 459f .M ' 9-A=<&?5B
%855"f FF ' &== "- ' ?<99 ' <' 7-95&>"59f
1+ ' -5: ' - ' 56 ' <==f 1M ' 59 5" 9 '
&" - ' -"B-"' 6& 4 =&I<J5 =&f M+ ' &== ;<'
B6<9B@: ' B5J :f 21 ' &"B: ' 45 -659 <'
95: 9<& " f 2N ' 59 &" 59C&56 ' 6& 4 -?$
?5"B-"5f 3,f 33 ' & 4 5"89Bf N*f N.f
*+M ' 59 A-"B"5 ' - ' =&I<J5 4f N2f N2 '
- ' -89 5"< f N, ' 5A=<95B =5>& &?<5!
**. ' %85: &-":' 5"<9B 95: ;5A &">' 4&=&;f
**3f **Nf *.*f *.F ' 59 <"><59 6& 4 <9S
B&"59f *.M ' #&:45: ' -' <= 59 45 :8AA5: :&-"f
*.2f *.3 ' 59 <77=&A &-"' <J-8 ' -=5f *FF '
P9>5: ' 4<: 5f *F,f *FN ' 59 ?5: :<>5 -'
4&=&;f *M* ' 59 <=<9?&">' ;-:& &-"f *2+ '
59 ?5: :<>5 - ' # <4 *2* ' -5: ' - ' 45
8&=B4<=f *2Ff *,*f *,M ' -9 :5C59& f
*3.!*N+!*N. $ 5 9-45Bf *N1 ' &?:' < '
95: -9&">' 45 ;<;<=<8 4-9& f *N2 ' 59
<">59 6& 4 9<"A5f .++ ' &5=B: ' - ' <>5 f
.** ' 49->?-9 -"@: ' <AW8& <=f .*N ' 55D:
T f # ' ! 8!

(

A-?7-9 '&"' A489A4 A595?-"&<:f . . , ' <&=895
-7 459 ?&"Bf <"Bf 45<=4f . .3 ' (55 : 4&=&;'
< ' #&"A45: 59f .F, ' " 59: ' -"B-"f .M. '
5=&5C5: ' 459:5=7 % ' .MN ' 5A5&C5: '
-=5f . ,F ' ' ?&9<A=5f . ,1 ' ' 4& 54<=
x:55 -=5 f . ,M! .33 ' #&:45: ' 4&=&;' -' J5'
A9-6"5Bf .N3f F+Nf F11 ' 95;<95: ' 7-9 459
A-" "59<5" f F1Mf F12 ' 9-A5: :&-": f \A f
F1, ' 59 =5 59 -' -=5f 312 ' 5R-&A&">:f &
F1, ' 45 5C5" ' B5=< 5Bf F13 ' 59?&:59RKf
FM+ ' -9 A&9A8=<9 -' 45 J&:4-;:' -' ";$
;5<:5 -B J ';59:5A8&-":f F2M ' 5<9 -7 <'
:8;;-:&&&-8:' A4&=Bf 32M ' J=&>5B -' 95A<=
=&I<J5 4f FM, ' -9 &" 5"&56' 6& 4 459f
FMN ' 59 ;<9&">' 6& 4 4&=&;f F2F ' 5<9":'
4&:' A4<9<A 59f F22f F2N ' 59 ?&:59 f F2Nf
1+. ' -9 J&>- 9 f 1+. ' #4-' <BC&:5B 4-9 f
F,+f F,* ' 59 <"L&5 ' <J-8 ' 45 -;5@:'
7&9: $798& :f 3N3 ' 5: -95:' 95=&>&-8:' 4-8:5:f
1+. ' 59 =5 59:' -' 4&=&;f 1+F ' 95": ' -7f
1+1f 112 ' 5?<"B:' 9578>55:' -7 -<&=5:f
1M. ' #&:45:' -' ?<D5 6<9 6& 4 9<"A-f
1,1 ' 59 B5:;<&9<' <8= # @:' B&:;=5<:895f
1,3 ' 59 A&9A8=<9 -' ?< -9:' <"B ' :459&77:f
13, ' #&=' "-' 4-5B 6<9"&">:' <J-8 ' <=<&:f
1NMf 1NN ' 8775&">:' -7 459 :8JR5A :f 2*M '
><&"' 7<"A&5:' 459:5=7 ' M*2 ' 5&I5B
6& 4 75C59f M. ' 5"B:' 459 =<: ' 6&:45:' -
=&I<J5 4f M. ' 59 B5< 4f 2. ' 59
A4<9<5 -9f M. ,f 2F. ' 59 ;9-J<J=5 &"S
:<"& f 2.3 ' 59:5A8 5B 4-' 65<D f 2F. '
<5 -7 459 95C5"85:f C&& ' Mf 2
(<9 ' -7 8&:5f &&& ' . ,M ' (<99&5:' <?5:' # H-7
A-=<"Bf &C ' 1Nf M+f *NM ' 59 &" 59C&56'
6& 4 <=-9f . .+ ' 59 :8J=5 f . .*f . .1f
.F*f .FMf .1+f 1,N ' " 59 <&"5B &"' -"S
B-"f # F,, ' "-L@:' <;;5<' -' 459f C&& ' *+M '
59 <":659 -' 45 9-5: <" :f *+3 ' 8 S
=<6:' 45 ;95<A459:' *** ' (<9A45:' -' 59 4!
**F ' (<D5:' 59?:' 6& 4 45 9-5: <" :f
**F ' -P@5< :' 79-?' -6;59 (8&9f **M '
5 & &-"' -7 45 57-9?59:' -' 459f =-=
5:59 5B J ' 45?f *M. ' 5 89":' -' -= $
9--Bf *M, ' 5?<"B:' <"' 5L;=<"<&-"' 79-?'
B?&9<' ##&8 5Cf C&& ' *33 ' &:' <":659f
*3N ' 59 =5 59 -' -<&=5:f *N+ ' 7759:'
-' "5>-&<5 6& 4 45 -9B:' -7 45 -"S
>95><&-"f . .3 ' #<A45:' 45 7&>4 ' <'
5& 4f .FF ' 59 &==":' <"B B5< 4f .1Nf
.2+ ' 5C&56' -7 459 A<9559f .M+f .M*
(<9 ' 8<9 f 459 J&9 4f &C ' *N2 ' 95< ' -'
?<99 ' 459 -' B6<9B # f .FF ' <99&5B'
-' &9=&">' J 5 -"f .F3 ' 9-6"5B 4595'
<:' <"' &"7<" f .1. ' 77595B &"' ?<99&<>5 -'
45 <8;4&"f C ' ,Ff ,3 ' 5;-9 5B 4<':45'
6&=' ?<99 ' &=B<95f ,M ' <D5"' -' 9<"A5f
,N ' A- ' -7759:' -' ;-&:-"' 459f FFN '
59 A=<&?:' -"' 45 ">=&:4 49-"5f C& ' *F*'
< &7&5:' 45 95< ' -7 <?J9<REf C&& ' 2M '
::8?5:' 45 <9?:' -7 ">=<"Bf 2Mf *+,$
5A-?5:' %855"' -7 9<"A5f *.F ' 59

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5"59> ' <"B' B5L 59& !' *.F' 59' B5:&>":' -'" 45' 9AR6'" -7' ">=<"B!' *2+!' .*3' 59' 95?<9D:' -'" %855'" =&I<J5 4' <"B' -9B' 8B=5 !' .N2' 5< 4' -7' 459' 48:J<"B!' 9<"A5:' !' ' 77595B' ?<99&<>5' J ' 45' <9=' -7' 99<"!' F+.' -<C5:' <9&:' 6& 4' 45' <9B&"<=' -7' -99<&"5!' F+F' 5A5&C5:' <'" <8 ->9<;4'=5 59'79-?'%855'" =&I<J5 4! F*,' 59' 95=<&-":' 6& 4' 459' :8JR5A :! F*3' =&I<J5 4&:' <B&B55' -' 459!' F*N' 59' =5 59:' -A-A4' "-J=5?5'" <"B' >5" =5?5"!' F.*' "C& 5B' J ' J-4' ;<9 &5:' -'95 89'" - ' A-=<"B!' F.M' -9B' <?=5 ' 4-8>4 ' -7' 7-9' 459' 48:J<"B!' F.3!' FF+' 578:5:' 5:S =&5&:' ;9-;-:<=:' 79-?' 45' <4-=&A' ;<9 !' FM*!' 5=A-?5:' 459' J9- 459' -9B' <?5:' 8<9 !' FM*' 578:5:' -' 9< &7 ' 45' 95< ' -7' B&"J89>4!' FM1' -';59?& 5B' -';<:' 49-8>4' ">=<"B!' FM2' 59' &" 59C&56' 6& 4'Ë 49->?-9 -"!' FM3!' FMN!' 59' ;59:-"<=' <;;5<9<"A5'<"B' A4<9<A 59!' FMN' -" 9<:5B' 6& 4' %855'" =&I<J5 4!' F2+' <&=:' 79-?' <=<&:' 7-9' A-=<"B!' F2*' <"B:'<' 5& 4!' F2M' 59' A4&57' <BC&:59:!' F2M' =5<B:'7-9' &59' -6'" :59C&A5' &" 45' A4<;5=' 9-<=!' F22' 59' A-"C59:<&-'" 6& 4' -4'" "-L!' F2,!' F23' 59' -;-:9 8"& &5:' <"B' 4-;5:!' F2N' 9-;-:5B' ?<99&<>5' J5 655'" 459' <"B' -9B' <9"=5 !' F,+' 59' 95A->"& &-'" B5?<"B5B' J ' (<& =<"B!' F,F' 578:5B' J ' =&I<J5 4!' F,1' "-L@:' -;&"&-'" -7' 459!' F,M' 5:&95:' <'" &" 59C&56' 6& 4' =&I<J5 4!' F,,' A45?5:' H7-9' 45' 4<"B' -7' 45' 9&"A5' -7' ;<&"!' F3+!' 1+M!' 1N3!' M.+!' M.M' %85:&-'" -7' 459' 95S A->"& &-"!' 1+M!' 1+2' -":;&9<A ' -7' 99<'" <"B' -465P' -' A<99 ' 459' -77!' 1+2' 9-S ;-:5B'&" 59C&56' J5 655'" 459' <"B' =&I<J5 4!' 1*+' 5A-?2?5"B<&-":-7' 459' 8"A=5:!' 11F' BC&:5B' J ' 45' 8D5' -7' 8&:5' -'&"A=&"5' -' 45' <9=' -7' 8" =5 !' 11F' 59' 5L;5S B& &-'" -' "C59"5::!' 11M' =&I<J5 4@:' 95S :-=8&-'" <J-8' 45' A-&:4' :8AA5::&-"!' 1,2' -9 ' -7' 4B 5=<9!' 1NF' ' ?<99&<>5' J5 655'" 459' <"B' -'" <9=-:'B5:&95B' J ' 45' A-A4' <4-=&A:!' 1N3' -9B' -J59 ' 8B=5 ' ;9-;-:5B' J ' =&I<J5 4!' 1NN'" C&&&' ,.!' ,,$ 4&=&;' ' A-":5" :!' M.+!' M.M' -::&J&=& ' -7' -459' ?<99&<>5:' 7-9' 459!' M.1' -"B& &-":' -'" 64&A4':45' ?<' 45' 95A->"&:5B' J ' =&I<S J5 4!' M.,' 59' ;59:-"<=' 4<J& :!' MF.' 59' W8<995=' 6& 4' "-L!' MF.!' 2F,' 5A5&C5:' <"B-;4' 6& 4' =&I<J5 4@:' ?5::<5!' 2FN' 59' B&778A8=&5:!' C&&&',*$ %85:&-'" -7' 45' :8AA5::&-'" <><&"!',.' J <&":' 45' =&J59<S &-'" -7' -465P!',2' 5>&":' -' 4&"D' :59&-8:=' -7' -9B' <9"=5 !' E,,' 59' A-"S C59:<&-'" 6& 4' <"B-=;4!',3' 5"B:'(5=S C&==5' -' -"B-"!' N2!' N,' 59' ;=<":' 7-9' 45' ?<99&:>5' 6& 4' <9"=5 !' *+*' 59' 79&5"B:'&'" ">=<"B!' *+*' <?5:' A-?2&:S :&-"59:' -' :5 =5' 45' :8AA5::&-"!' *+M' -"$

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7595"A5' <' 596&AD!' **+' &"<=' B5?<"B:' -7' 45' -?2&::&-"59:!' **F' 4-'95W85:' 45' 95 89'" -7' -9B' <9"=5 !' **3' 5A&=@:' <":65' -' (<& =<"B' <"B' (899< !' **1!' **2' 4<D5:' -77' (<& =<"B!' **,' <C&B' &II&-' &"' 7<C-89' 6& 4' 459!' **,' =5A:' <' 6&==&"HA::' -' ?<99' 5&A5:59!' **3' <9"=5 '&" 9-B8A5B' -' 459!' *.,' %8<995=:' <J-8' 45' 95:-9<&-'" -7' 45' (<::!' *.3!' *.N' -:;-"5?5"' -7' 45' :5 =5?5"' -7' 45' :8AA5::&-"!' *.N' "A95<:&">' 7<C-89' :4-6'" -' <9"=5 !' *1F' ""-8"A5:' 459' &" 5"B5B' ?<99&<>5' 6& 4' <9"=5 ' -' =&I<S J5 4' <"B' 4&=&;!' *1M!' *1,' 59' B5?-"S :9<&-":' -7' <775A&-'" B89&">' &9"=5 @:' &==5::!' *M+' 59:&:' 6& 4' 45' <?=5 ' ?<99&<>5!' *2.' 59' A-"C59:<&-'" 6& 4' 49->?-9 -"!' *21' ;<95" ' A4<">5' &'" 459' A4<9<A 59!' *2,!' *,2' 9-J<J=5'A-":5S W85"A5:' -7' 45' ?<99&<>5!' *MN' 95"> 4' -7' 459' ;-:&&-"!' *,+' 59' 79&5"B:' &'" ">=<"B!' *,*' 59' =5 59:' -' =&I<J5 =&!' B' 7' B') "B5<C-89:' -'5" 9<;' (899< !' *,M' 59' B&:A8::&-'" 6& 4' <"B-=;4!' *3*' 59' ?<99&<>5' 6& 4' <9"=5 !' *31' 59' <":659:' -' <?6-9 4!' *3,' <D5:' 45' 45=B' <>&":' 459' J9- 459!' *N*!' .+,' 59' 7<C-89' -' -465P!' .+M' 49->?-9 -"@:' =5 59' -'459!' ..M' "R89&-8:' &"=85"A-' -7' &II&-' -C59' 459!' ..2!' .FF' &77595"A5:' J5S 655'" 459' <"B' 459' 48:J<"B!' .F2' 59' &" &?<A ' 6& 4' &II&-!' .FN' AA8:5B' J ' <9"=5 ' -7'8"7<& 478="5::!' .1*!' .1.' -"S :;&9<A ' -' ?89B59' &II&-!' .1F' L;5=:' <"B-=;4'79-?' A-=<"B!' .11' (89B59' -7' &II&-!' .M*' <&":' -C59' <9"=5 !' .MN!' .2*' :A<;5:' -' 8"J<9!' .21' 5 89":' -' B&"S J89>4!' .22' 59' A95<:&">' ;-;8=<9& '&'" @ ">=<"B!' .2N' 59' ;9-:;5A:!' .,' 59' ;<9 ' <D5'" J ' =&I<J5 4!' .,1' 5?<"B:' & 45' :8995"B59' -7' 45' 78>& &C5' =-9B:!' .,,' 59' 79&5"B:'&'" ">=<"B!' .3*!' .3N' =&I<S J5 4@:' 95?-":9<"A5:!' .3.' &9 4' -7' 459' :-'" <?5:!' .31' 59' <775A&-'" 7-9' -4$ 65=!' .NM' 5"B:' 459' 48:J<"B' <6<' 79-?' 459!' .N2' <9"=5 @:' &" 5"B5B' 7=&>4' -' ">=<"B!' .NN' 45' <"B' <9"=5 ' J5S 7-95' 45' -8"A&=!' F+F' 9-;-:5B' J-"B' J5 655'" 45' 6-' %855":!' FF1' 45' >-5:' -' 5BJ89>4!' F1+' 59' &="5::!' F1*' &7S 7595"A5:' 6& 4' <9"=5 !' F1F' '" 45' ">S =&:4' J-9B59!' F1F' 9<&>?&=<9!' F11' 9-;-:<=' 7-9' < B&C-9A5!' F1M' -"B' 7-9' <98=-@:' B5: 98A&-"!' F1,' &:' &="5::!' F++' (<9@:' 9&:&' -'4&?!' FMF' 59' =5 59' -' -465P!' F23' -465=@:' <":659!' F2.' 59' 48:J<"B@:' ?89B59!' F23' 59' 95A5&;' -7' 45' "56:!' &L' M!' 2' -5:' -' -9B' 5-"!' *+' @ 578:5:' -' <::5?J=5 45' "-J&=& !' *1' 5=&5C5B' -' 4<C5' J55'" <;<9 ' -' 45' ?89B59!' *,' =&I<J5 4@:' =5 59' -' 459!' .F

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59 95A5; &-"- 7 =&I<J5 4: ?5::5">59 .1 9-?&:5: =&I<J5 4 4< - 4&C5= :4<= J5 ;8 -"4&: 9&<= .M -":;&9<A <><&": 459 <"B - 465=! F2 &: 9&<= <"B <AW8& <=! 1N 45 >-5: - &9=&">! 23 59 =5 S 59: - =C5=! 2N 2+ 59 C&:& - 45 9&"A5! 2F 5&I5B J - 46AP <"B5<9"5B - 8"J<9! 2.! 2F -?J&"<&-"- 7 45 =-9B: - B5;-:5 459! 22 <9"5B <><&": - 465=! 2, 8 ?<99&5: 4&?! ,1 59 ;9-7-8"B < <A4?5" - 4&?! ,M (*$ 5"B: 4 &:4-;- 7 8"J=<"5 - <9&:! ,3! ,N & 4 - 465= < -9 46&AD! 3+$ 3 :A<;5:& "B&:>8&:5! 3M & 4 - =&$ 65= <BC<"A5:C - B&"J89>4! 32 (5 J 45 A-"75B59< 5 =-9B: < <9J599 &=! N+ <D5" ;9&:-"59 &" - B&"J89>4! N1! NM 578:A: - <J<"B-" - 465=! N, 9-$:<= - D&= 459! N3 ?;9&:-"5B &" -A4$ C5" <: =5! NN %855" =&I<J5 4: ?5:S :<>5 - 459! *+,$**+ 59 B<">59! *.1 59 5L5A8 &-" <BC&:5B! *.2 59 =&J59<S &-" B5?<"B5B J 49->?-9 -"! *F, 5 59?&"< &-" - J9&"> 459 - 9&<=! *F3 &>": 459 <JB&A< &-"! *1 59 ;9&:-"! *M, 59 &" 59C&56 6& 4 (899< ! *M3 ;<9 7-9 459 A95< 5B J 45 <?&= -":! *N1 45 ;9-;-:5B 9J9-< 4 ?<99&<>5! *N1! . .*! . .F A<A &-"&" 459 7<C-89! *N3 5S A=<9< -9 A -7 <9=&<?5" <><&": 459! .+F!.+1 =<":7-9 459 5:A<;5!.*+ -<C5: -A4=5C5"! .*. <?&= -"! .*F! .*1 45 >&& 459&"> 4595! .*1 59 =5 59 - 45 <9B&"<= -7 -99<&"5! .*2 5"B: 5 -" - <9&:! <"B 6 9& 5: - =&I<J5 4! .*2 =&I<J5 4: 95;= ! .*N &:45: - 5:5<;5 - 8?J<9 -" 6& 4 -9B =5?&">! . .F 575< 5B < <">:&B5! . .M 59 7=&>4 - 45 -=6< ! . . , 59 B-8J : <: - 459 78 895 0A-89:5! . .3! . .N 9-::5: &" - ">=<"B! .F. 5"B: <=5 59 - =&I<J5 4! .FF 59 95A5; &-" &" 8?J59=<"B! .FF 5 <&"5B < <9=&:=5 <: =5! .FN "-6=5:&: &?;95::&-" -7 459 A4<9<A 59! .1*$.1F 5"B: 599&5: <"B =5?&"> - -"B-"! .1F =&I<J5 4 B5A=&"5: - :55 459! .1,! .13 -;=5"&:4?5" -7 459 6<9B9-J5! .M+ 495< 5"5B &"C5: &>< &-" -7 45 <9"=5 ?89B59! .M,! . ,2 (-C5B - -= -" <: =5! .2F! .2M 9-75::5: A-"7-9?& ! .2, 59 J9- 459:=5 59 -459! .2, 59 95=&>&-8: A-"7595"A5: 6& 4 "-6=5:! .2N 59=5 59 - 45 %855"-7 ;<&"! . ,F (*$ 9-;-:<= -?<99 459 -45 8D5 -7 -97-=D! .3+! FF* 59 79&5"B:! .3* ;5"&"> -7 45 A-?? &::&-"< -9D! .31 =<"-7?<99 S &">459 - 5-9>5 <95 ! .NF! FFF 45 A-?? &::&-"9<":75995B - -"B-"! .N, 59 :8& -9:! FFF 5:8?;&-" -7 45 <9"=5 "&"W8&9 ! FF1 59 5"B5<C-89: - :&7=5 & ! FF3 AA8:<&-": -7 (899< <"B

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5""-L! F1+! F1* 59 95W85: -<;;5<9 &" 459 -6" B575"A5! F11 9-B8A&-" -7 45 <:D5 =5 59:J57-95 45 -?? &::&-"59:! F1, 9-"-8"A5B >5"8&"5 J 45 =-9B:! F13 BC&:5B J =&I<J5 4 -A-"7&9?459 <* B&$ A<&-"! FM* 59 79&5"B: ?AB&J& 5&":89S 95A&-"! F, * 578:5: -95;5< 459 <JB&S A<&-"! F,3 5A5&C5: <?5::<>5 7&9-? =&I<J5 4! F3+ 59 7<=:5 :<5?5" -459 79&5"B: &" A-=<"B! F3* 59 4&>4 -"5! F3M -":5" : -<":65 45 A4<9>5:! F3M! F32 =-:5 -7 45 &"W8&9 ! F33! F3N 5 59 79-? =&I<J5 4! FN 5"59<= 95?<9D: - 45 5C&B5"A5 <><&": 459! FNF 9&C<5 -;&"&-" -7 45 &:4-; -7 -::! 1++ -6 95><9B5B &" *M2N! 1+3 - -4 -7 8: 9&< :8>>5: 5B 7-9 459! 1*F 59 : -9 -7 45 ;9-;-:5B ?89B59 -7 &"> 4&=&;! 1*F &: 8"6&=S =&"> <B-;&-" -7 459 A<8:5! 1*1 -"S 7=&A &"> :A45?5:& " 459 7<C-89! 1.+ 45 ;9-;-:5B ? 89&->5 6& 4 -97-=D! 1..! 11M =&I<J5 4: <99<">5?5" 6& 4 45 5>5" (899< ! 1F =<A5B &" A4<9>5 -7 -9B 4956:J89 ! 1FF 5?-C5B - &">7&5=B! 1FN 59 C5L<&-" < 45 A-89:5 -7 5C5" :& " A-=<"B! 11M 4955 <= 59"<&C5: -7S 7595B 7-9 459 A-":&B59<&-"! 1M+ 12* 9-S ;-:<=:7-9 459 95: -9<&-"! 1M* 59 ;95S 5"B5B &=":5:! 1M 5A&=: W85: &-" - J5 :8J?& 5B - 459!:1MF 59 <":659 <J-8 45 -97-=D ?<99&<>5! 1MM =&I<S J5 4 B5 59?&":5 - 95: -95 459! 12+ 45 -9B: -7 A-=<"B 9578:5 - 95A5&C5 459! 12 #-5 -7 45 ">=&:4 -8"A&= &" 7<C-89 -7 459 :8AA5::&-"! 1,* "5"S &-" -7 45 <4-=&A =-9B: - A<99 459 -77! 1,.! 1,2 <D5"! - 8 J89 &" -9B 8" &">B-"@: A8: -B ! 13+ 9-;-:5B - J5 95 89"5B &" - (899< : 4<"B:! 13+ 5&I895 -7 459 ;<;59:! 13F 5: -95B - 4956:J89 @: A4<9>5! 1N+ 5?; -7 -9 -" - A<" 459 -77! 1NN 95;<9< &-": -7 45 -9B:! M*3!M.M <D5" - -C5" 9 ! M.M =<":7-9 459 5:A<;5! L *1! *M 5:&5>5: 45 <4-=&A -659: 6& 4 A9&5: 7-9 <::&: <"A5! 13 &C&:&-":<?-"> 45 <4-=&A: &" ">=<"B <: - 459 B&:;-:<=! 1N 4<:6-9 4!H2, 59 95: -9<&-" <><&" B5:&95B J =&I<J5 4! N1! NM 45 A-"B&-":! N3 5A&=:5" B-6" - 459! *+1 ;&9&"&" 64&A4 :45 95A5&C5B 4&?! **N -??&::&-"&" -"B-" 7-9 459 95S : -9<&-"! *1+! *1* 59 ;-:&A-" <"B ;9-:;5A : B5:A9&J5B J 45 &:4-;-7 -::! *M* 5 59?&"5B - 7-9A5 45 8D5 -7 -97-=D - <95:-=8&-"! *MM! *M2 59 ;5&A-" - 4&=&;! *2 59 ?5::<>5 - 45 -;5! *216-7A -=&&A<= 95<:-":& " 7<C-89 -7 459 :8AA5::&-" - 45 49-"5 -7 ">=<"B! *3M 59 ;9-R5A : 7-9 5:A<;$

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&">!' 3,' (*$ ' L<?&"5B'<:' -' J-9' A-99-$' $;-"B5"A ' 49-8>4' &A=-=7&' . . . ' 59' -9C< = < 95B8A5B!' .NM' -?7& 5B' -' A=-:'5' &?;9&:-" ?5" !' .NM' ' 59' :4<95' &"' 7 45 <?=5 ' ?89B59' <B?& 5B' J ' 45' &:4-,' -7' -::!' .NN' 8J=&A< &-"' -7' 8A4<"<"@:' Q 5 5A &-!@' F.+&' 59' =5 -9' -' =&I<J5 4' -' :<C5' -97-=D@:' =&75!' FF1' =&I<J5 4@:' <":659!' FF2' 59' 95;= !' FF3$F1+' -' ?5" &-"5B' &"' 45' 95< ' J5 655"' ">S =<"B' <"B' 9<"A5!' FMF' 9-;-:5B' &=-' -7' <&"B59'<>&":'459!' FMN!' 5?<"B'-7' 45' 9A4J&:4-;-:' <"B' &:4-;-:' -7' ">=<"B' 7-9' 459'B5< 4!' F2+!' A'7-9'A8 &">'459'-7779-?' 45':8AA5::&-"!' F23' 5?<&":'<' 4577&5=B' A-" 5?; 8-8:' <"B'B57&<" !' F3,' -9B<">-9!' 1*F' 5A5&C5:' <' B5:;-"B&">'=5 59' 79-?' (<& =<"B!' 11+' ->-&<&-"$:' 7-9' :8995"S B59&">' 459' -' 45' <9=' -7' (<9!' 111' 59' A<8:5' 5L &">8&:45B' &"' A-=<"B!' 1,+' 59' A-89:5' -7' =75!' L&!',+!',*' =-:' Q& 4 <B' 495C&$:J89 !',,' 59' 5L;5A<&-":' 79-?E' 45' =5"^-"' ?<99&<>5!' *M+!' *M*' =&956:J89' -9B595B' -' =--D' :4<9;=' <7 59' 4-9!.,2' 594< 95B-7(-9-"!.3F' "C& 5:' 4&=&;' -' <D5' <A&-"' &"' A-=<"B!' .NM' 9-;-:5:' -' <::-A&< 5'459' 5-"' 6& 4' 459:5=7' -"' 45' 49-"5!' .N2!' 122' 5"B:' -8><:' -' 9<"A5!' 122' =&I<J5 4@:' =5 59' -' 459!' 1,+' =&I<J5 4' < 5?;:' -' ;=< ' 459' -7=7 <><&":' 459' :-"!' 1,.' 59' &" 59C&56' 6& 4' 5<=5!' 1,.!' 1,F' AW8<&" 5B' 6& 4' 5""-L@:' ;=- !' 1,.!' 1,3!' 59' &" 9&>85:!' 1,N' 9-;-:5B' 95< ' 6& =&' =&I<J5 4!' 1,N' "'B5:;<&9<' 5"" -L@:' ;-=9--'59 ! 1NF' 9& 5:' -' (5"B-I<'-"' 459';9-:;5A:! 1N1' -"B& &-"' -7' 459' G;<9 !' 1N1' ;$' ;5<=:' -' =&I<J5 4!' M*F' 9-;-:5B' <=&<"A5 6& 4' 9<"A5' <"B' ">=<"B!' M*,' 5 59' -' (5"B-I<!' 2.3 ' " 95< :/ 4&?' "-' -' =5<C5' ">=<"B!' 2.N' -":8=:' (5"B-I<' 4&:' <BC&A5!' M1F' <?5:@:' 5:&?<5'-7' 459!' M1,!' MMF' 5<=5' <><&"' :5"' -!' MMF!' M3N' 5A=&"5:' -' A-"A=8B5!' MM2' =&59'R-' <' 45' <::<::&"<&-"' -7' 45' 9&"A5' -7' 9<">5!' M2M' 59' A-?;=&A' &"' 45' 49->?-9-"' {0-":;&9<A !' 2*M' 59' <"&?-:&' <><&":' &"B:<!' 21N' 59' &": 98A&-":' -' <?5:!' 21N' (&:;&-"' -7' (' (' ($C:-"!' 2MM' &" 59S C&56' 6& 4' <B5!' 22M$2M,' -$-;5"&">-7' 95< ' 6& 4!' 2MM' 59' ;9-8B' 599<:!'22+' 45' 95< ' B9-;;5B!' 22*' 59' 4-=B' -C59' 459':-"!2,*' =&I<J5 -&@:' 95< ?5" -7' 459!' L&&!'.,' =<A5B' 8"B59' 45' A<95' -7' &9' <B=59!' F.' =-:' <><&":' =&I<J5 4!' FF' 5 59' -7' <"' <=&<"' 5:8& !' F2' 59' B5:;59< 5' ;-:&&-"!' F,' 5>-&<&-":' 7-9' 459' 95=5<:5!' 1,$M1' <C-89<J=5' B&:;-:&S &-"' -7' =&I<J5 4@:' -8"A&' -6<9B:' 459!' M+' 5?-C5B' -' 8 J89' <:=5!' MM' 59' B&:95::!' M2' "B5<C-89:' -' 5:A<;5' 79-?

&& J8& !' +*!' .**' 89:5:' 95' <"B' 459' :-"!' NF' 59' =5 59' -' =&I<J5 4!' +F' "B' 95;=!' N1' 9&5:' 459' 5"A4<" ?5" :' -"' <8=5!' NM' <' 85@:' <BC&A5' -' 459!' +,' =-' -7' <=:&">4<?!' .*.' 3$' \' -995S :;-"B:' 6& 4' (<8C&::& 95!' .*M' 5?-C5B' - 4<9 =A !' .*,' 59' A-995:;-"B5"A5' 6& 4' (-9><"!' .*,' !' &J&"> -"@:' ;=-!' . .2' 59' =&75' <' 4<9 =5 !' .FF' 5<9":' -7' 45' =5<>85' J5 655"' =&I<J5 4' <"B' <?5:!' .F1' 5<9' -7' 459' D55;59' <8=5!' .F+' 59' A-995:;-"B5"A5' J' A&;45&$:!' .1+' <"' <"B' 89&-' 459' :5A95 <9&5:!' .1+' -995S :;-"B:' 6& 4' 8J&"> -"!' .1F' 8: &7&A<&-"' -7' 459' A-"B8A !' .12' &:A-C59' -7' 45' ;=- !' .MF' &9' <8=A@:' ;=<"' -' <995:' 459!' .M2' 995: 5B' <"B' 95?-C5B' -' &L<=!' .M,' -"C5 5B' J<AD' -' 4<9 =5 !' .M3' <;&I5:' <9J<9<' (-6J9<@:' A4&=B!' .M3!' .MN' -?7&:&-"' &:;85B' <><&":' 459!' .21!' .,M' 5?-C5B' -' 4-9&"><!' .2M' 59' =5 59' B&:&"459&"&">' 459' :-"!' .,F' (*$' 59' -"5' -7' B57&<"A5' <"B' &"" -A5"A5!' .,,' =&I<J5 4@:' =5 59' -' 459!' .,3' -7&&:-' -' :<"B' 459' 9&<=!' J8' <' =<:' <AW"&5:5A:!' .,3!' .,N!' .3*' 5A&=:' &" 59C&56' 6& 4' 459!' .,3' 45' ?5?J59:' W7' 45' -?S ?&::&-"!' .3*' 59' ;95:5"A5' J57-95' 45' -?7&::&-"59:<"B' B575"A5!' .3.' 5"&5:' 459' A-?;=&A&' &"' <J&"> -"E:' ;=- !' .3F' 89>=&=5' 95;=&5:' -' 459' B575"A5!' <"B' 4&:' A4<9>5:' <><&":' 459!' .32' %85:&-":' <8=5' <:' -' 459'R8B>5:!' .3,E' -8"B'>8&=' <"B'B5A=<95B'&"A<;<J=5' -7':8AA55B&">' -' 45' A9-6"!' .33' <9=&<?5":8?7:' -5B!' .3N' 45'%855"@:':;55A4!' .N+$.N.' " 597595"A5' -7' <?5:<"B' 9<"A5!' .N1' " 59A5::&-"' -7' 5"9' -"' 459' J54<=7!' F+M' "B' -7' <?5:!' F+2' 59':5" 5"A5'A-"C- 5B' -' 459' J' 8AD489:' <"B' 5<=5!' F+3' 578:5:' -' A-"75::' 459' A9&?5!' F2N' 59' &" 59C&56' 6& 4' <8=5!' F*+' 578:5:' 45' <::&:<"A5' -7' <"' ">=&A<4' B&C&"5"!' F**' 95;<95:!' 7-9' B5< 4!' F**!' F*.' 9& 5:' -' 4- -;A!' 3*.' 59' A4<9<A 59' <"B' =&I<J5 4@:' A-" 9<:5B!' F*F=' =&I<J5 4' :&>":' 45' 6<99<"' '7-9' 459' 5L5A8&-"!' F.F' 95;<95:' 7-9' 459' 5"B!' FF*!FF.' &:9&J8 5:';95:5" :!' FFF' 59' =<:' ?-?5" :=!' FF1' 59' B5< 4!' FF+!' F1+ ! 59' A4<9<A 59!' F1* (<9 !' 5>5" ' -7' 45' 5 459=<"B:!' :&:59' -7' 4<9=5:' E#!' &&' *.F' 578:5:' -' 7-9J&B' 45' ;8J=&A<&-"' -7' 45' <;<=' A5":895:' -"' 5"9' # === !' .+.' E' 59' =5 59' 95:;5A &">' 59 9@:' ?<"&<>B' -' <"5' 5 ?-89!' MF.' (*$' 89&-8:' =5 59' -' 459' 79-?' ">=<"B!' &&&' *2+' (*$' 59' A-"C59$:<&-":' 6& 4' 9&- 45:=5 !' F+M!' F1,' E <:-"!' (!' C&:& :' (<9' &=<9 !' L& E' E (<:-"!' &9' -4"!' <?J":<B-9' -' 9<"A5!' EW8-5B!' &C' 1N." C' .2.!' F+,!' F+3' ' C&' .*!

=8:

F*f .N. ' '" 8=8&:f 13N' BC-A" 5:' <
;<"& :=& ; -=&A f C&& ' . .F (*$ ' "' 7<C-89 -7
; -8A-' 6& 4 9<"A-f C&&& ' MN f 2+ (*$ '
(<:W85 < ' 955" 6&A4 B5:A9&J5B f & ' ,F
(8::' 95: -95B f &8 <&;=<"B f 5: $
&&": -9 JJ5 f . 3F f 8 ' B-6 '" &'" =&-'
-6=<"B:' -7 - =<"B f C&& ' **2 ' J-=&:45B
J ' 4-' A- A4 -7- ""5C:f . ,+' (<::$
?-">59:(<995: 5B f FF3 f FFN' <6:' <><&":'
(<:' ?-95 : 9&A = ' 5"7-9A5B f 1*3 ' 995: '
&9"B ;8"&:4?5" ' -7 < 4-=&A:' 7-9 < 5"B&">'
("$::f &L ' *3*
(": -9:f ==&A4&&&9B f & ' F*N
(8 489 f ' F*+' P"B59 &&D5:' -' D&=-' ==89>4=- f
F*. ' 5" ' -' 4-' -659 f F*F ' L5A8 5B f
F.*
(< 4&<:f 9A4B8D5 f &"C& 5B -' 45 A 4-9$
=<"B:f L& ' N+
(889-C59 ' :4-- :' --&>" f L ' FN3
(<89&A5 f 8D5' -7 <L5 f &C ' F3, ' C ' F+*' Y '
:&5>5:' (<>B5J89>f F+*f FF, ' ; ;=&5:' &'"
C<&'" -' ">=<"B 7-9 <&B f F, 3 ' 5A5&C5:'
=?9=A:' # f 1+*' -9?:' <'" <=&<"A5 6& 4
9<"A-f 1+F' 5?<"B:' C-5:' 7-9 8 459<":'
" ' 4-' -8"A&-' 95" f 1+1' <&:A:' 4-'
:&5>5 -7 (<>B5J89>f 1+M' (-5:' -'" 8>:S
J89>' <"B 4-' 9-=f 1+, ' &A<5:' 4-'
;5"A5 -7 <:::<8f 1+3 k
B-' (<8C&:=&&9-f <: 5="<8f C&&& ' .+*f .+M'
$ 95"A4 <?J<::<B-9f L& ' 13f 1+, $12*' &:'
A4<9<A 59 -7 =&I<J5 4f L&& ' *F!*, ' 95::5:'
45 9&;<9 & 5 <=&<"A5f , *
(<L&?&=&<'" f ?;-&E-9 -7 59?<" f C&&&
N1 ' 45 <9 59 :5" ' -' 4&?f &L ' *, F
(<L65=f -9B f &C ' *NF f .*, f ..N ' &:' ;9-$E
@ &"&:5 -' 5"9 ' # f .F. f .1+f F*2
(8 "5f 8 4J59 f 4&:' 5L5A8 &-"f L& ' .' (*$ '
(< "-- 4f :&5>5 -7f && ' F*, '
(5< f ;9&A5 -7f &'" 45 *2 4 A5" 89 f &' ..'
(5< 4f A-"B& &-'" -7 45 : <J=&:45B 489A4
&"f L&' *+.
(-AD5"J89>4f 8D5 -7f ' 1+Mf 1+, ' k
(AA=&=&'" -;5":' z& :' >< 5:' -' =&5 9&"A5 -7
9<">5f L ' FNF ' <AD5B J ' =C<@:' 9--;:f
1.3
(5B489: !!: < 5 -7 45 A=59> ' -7f &L ' M+2 (*$ '
B5 (5B&A&f <=&59&"-' 4 ' < 459&"5 B-' (5S
B&A& ' R
(5B&"< 5=&f 8D5 -7f L ' .M, ' &:' =-:' -77
=8:4&">f F, 2 E f ! !
(5B&"< &B-8&<" 8DA& -7f :8AA55B:' <" <
98If <:' B?&9<=' -7 4-' ;<"&:4' 7=55 f
L&& ' 1+*' <&=:' 6& 4 45 9?<B< 79-?'
&:J-"!$1M1 ' P"5W8<=' -' 4&:' <:D f 1M2'
99&C5:' < ' = ?-8 4f 1MN ' "><>5:' =&5
E ">=&:4f 1MNf 12+' 7759:' J< =5 -'
-6<9B-77 -9 =<"B!121$12N ' 5 59?&"5:'
-' ?<D5' 4&:' 6< E -' <9?<f 12N ' 8&$:85B
J f -6<9B f 1,+' 9&C5'" 79-?' 4&:' <"$
A4-&E<>5' J ' 45 7&95:4&;:f 1,2 ' "A-8" 59:'
9<D5f <"B' 4&:' 7=55 ' B575 & 5B f 13+C 8&"$

(?-":' (&>85=' B5 W85"B-'7-9'<BC&A5f 13M'
-=B:' < A-8"A&=' -7' &"W8&& E <"B' ;8"&:45:'
4&:' -77&A59:' 7-9' A-6<9B&A5f 13Mf 1N3 ' &:$
795 E:' -7' 4&:' 7=55 f 1N3f 1NN ' <&=:' 9-8"B'
95=<"B f M++' &:' :59C<" :f =<"B&">' <'
9<=55f ;8 ' -' 4-' :6-9B f M+. ' 5 89":' -'
;<&"f M*,
(54&"A4 4-"! 4&=&;!4&:';9-5:' -' 5"9 #
-'" 45' &L' 9 &A=5:f &&& ' 1+3$1+M" # 113
(5=5"B5 I f 5B9-f ;<"&:4' B?&9<=f C&=&' 1FN
(5=9-:5f -?J:' -7 45 -8><:5:' <f &&C'
FN3E
(5=-"f &A4-=<:f &&& ' *+*'
(5=C&=5f "B956 f L& ' 1N. ' & 4 (<9 '
8-9 ' <' -459&"><f L&& ' FFM
(5=C&=5f <?5:f D&=:' 5-"f &Cf 1,,' ' C '
1*F
(5=C&=5 ' &9' <?5:f A4<9<A 59 <"B' &&$ ' -7f
C&=&' N2' ?;=- 5B' -'" :5A&$5 ' :59C&A5 J '
45' %855'" -7' A-:f N2f N, ' &:' &" 59C&56'
6& 4' %855'" =&I<J5 =&f N, ' &:' <BC&A5' -'
(<&$ ' 8<9 f ... ' "" -8"A5:' 4-' J&9 4'
-7' <?5:f .33' 5 89":' -' A-=<"B f .N1'
'" 45' %855'" -7' A-:@;9-;-:5B ?<99&<>5'
-' -465=f &L ' F.f FF ' (<B5';9&:-"59f 21'
5=5<:5B f 2M' ' -= 9--EBf ,F E -5:'
-' 45' %855'" <' -A4=5C5"f *FN ' &:'=5 59'
-' %855'" =&I<J5 4f *1F
(5=C&=5f &9' -J59 f C&&& ' .+2!.+, ' "' -"S
B-"f . ,F' 45' %855'" -7' A-:@!=5 59' -'
4&?f .N+@ "E -"B-"f &L ' *+f *3!*N" *+, '
'" B&"J89>4' <:=5f L ' 1F3f 123!E 12N'
&:' &" 59C&56' 6& 4' =&I<J5 4' -'" (<9 @:'
J54<=7f L&& ' F+F
B5 (5"B-I<lE -'" 59"<9B&"-f A-?5:' -' ">S
=<"B f L&& .Ff 23f NN ' -&A5' -7 4&?f NN'
&:' &": 98A&-":f NN ' " 59C&56:' C& 4'
E =&I<J5 4f *+*$$*+F!*1Mf F*2 ' E <"D59 7-9'
45' <4-=&A' ;9&:-"59:f F13 ' '" A-A4'
<77<&9:!' F1N ' '" @ 45 ;59:5A8&-'" -7 45'
<4-=&A:f F2F ' 578:5B ' <'" <8B&5"A5 J '
45' %855"f 1+. E -?;=&&":' -7'<'" -8 9<>5'
@-'" 4&:' 4-8:5f 1..!1.F' &:' &" 9&>85:f 1,N
$F \ ' &:' B&77&A8=&5:' 6& 4' 45' 5:8& :f
13M ' (<9 ' 8<9@:' =5 59' -' 4&?f *1N1'
:D:' -' 45' 95A<=5Bf M.3f BC&:5:' (<9 '
8<9 E -' 5?;-9&:5f @M1F ' E 9B595B ' -'
=5<C5' ">=<"B f 2.F ' -<C5:f 2.2& -6'
&$5<5B J ' 5"9 ' -7 9<"A-f L&8 ,1'
-995:;-"B:' sC& 4 (<9 ' %855'" -7 A-:f
..1f ..M (*$ ' -":8=5B J ' &&=4&9Bf ..N'
95C<&=:' -'" 4&=&;' -' &"C<B5 ">@<"B f .33'
(<9j:';95:5" ' -' 4&?f FFF '&
B5 (5"B-I<" &5>-f :5" ' -' ">=<"B f &&& ' .,*
5A<=5B f &C E*+, f .3*Ef F+N ' C ' N+
B5 (5"B-I<f -'" 5B9-f =<"B:E <' =<95 :S
=<"B f <"B &:' D&=5B f L&& ' M+,
(59A59:@ 4d;a=f ;59:5A8 &">' A-?? & 55':& '<'
45f &&& ' 1+2 0 E E
(59A4<" :f 5=-6:4&;@-7 -4B-"f C ' 12N'
45&9 >9&5C<"A5:f 1, ' K Q

(

(59A89&<"-! C59<9B! 5"59<= -7 45 5:8& :!
0%0
(5 A<=7! 5-"<9B! 9&5B! L 2+2
(5 595"! -&= ""5 -=5 "@: 9&<=! && 2*3
(5 485"! -9B! &9 *3$.*! .F! 1$*$1,
(5 485"! -9B! >9<"B:-"' -7 45 <J-C5!
4-8>4 -7 7-9 < 48:J<"B 7-9 (<9 8<9 !
&L .+,
(5 I! :&5>5 -7! C 13.' C& .FN ' C&& .N
&756 <:! &9 5 59!' C& 13.' C&& F,2
(&A45=5! #5"5 &<"' <?J<::<B-9! C& 1++! 2+N
(&BB 5J89>! L 1*M
(&BB=5?-95! (9 ! &L .1M! .M.
(&=<"! W8<995= <J-8 45 A& -7! 95C&C5B J
9<"A&:' <"B 4<9=5:' # ! &C ** .'
(&=<"! 49&: &"<! 8A45::' -7' 4 49&: &"<
(&=B?< ! &9 <= 59!' C& 2*F ' &L *F1! *12
+1" L& 'VF1" L&& .,3! .3
(&=& <9 -9><"&:< &-"' -7 :-A&5 &"' 45 758B<=
: 5?!' &' * * C59 ">=&54?<"' 9<&"5B
-' J5 <: -=B&59! 2. < 8 5 -7 &"A45: 59
-"! 2F 9A459 '5"R-&"5B! 2F 45 : < 8 5
95$5"<A 5B 6& 4 ?-95 : 9&">5" ;9-C&:&-":!
2M -A&<= <BC<" <>5:' -7 ?&=& <9 9<&"&">!
23 4<">5:' &"' 45 <9 -7 6<9 &"' 45 95&>"'
-7 =&I<J5 4! C&&! 2
(&="5! <= 59! J89"! C&& *+2" &L *,N
(-BB&:! (<: 59 B?8"B! 4&:' A-"C59:<&-"'
6& 4 5"9 # !' &' *+1
(-48":' 59 ! C& *13
(-&>"5! 4-?<:! &&&' .*F

B5= <(-=5! (! L F3M
(-"<9A4 ! 4595B& <9 ! &L F+3! F+N C&=:'
-7! F+N
(-"<: 59&5:! 45&9 "5>=5A -7 45&9 B8 &5:' -'
45 ;--9! &' ,2$*+* 4<9>5:' <><&": ! &&'
1F+ #&:& <&-"' -7 5"9 # = @:' A-?S
?&::&-"59:' -! 111 45&9 B5=&"W85"A&5:!!
1FF$1M+ 45&9 ?-9<= A-"B& &-"! 1MM'
9&?5:' &"' 45 JJ5 -7 =J<"@:! 1FF'
5A-"B C&:& <&-"' J 9A4J&:4-;' <94<?!
1F, "&W8& &5:' -7 &-"! 112 7 (<&B5"'
9<B=5 ! 112 7 <">B5"' <"B -C59! 112'
&A47&5=B! 113' -8" <&":' JJ5 ! 011N'
-9 -"! :A5"5<! 1M+ 9-B:4<?! :A5"5<!
1M. k 5'6A-?? &::&-"59:' 7-9 45&9 95>8=<S
&-"! 1MM' 45&9$4-99&J=5 : < 5 B5:A9&J5B
k &" 45 @ =<AD =--D!! 12+ LA5; &-":' -!
12. A' -7 B&::-=8 &-"! 12, &9 :8;S
;95::&-"' -7! 12N <C-89<J=5 5: &?-" -7
:D5 <:' -' 45 :8;59&-9:' -7 :-?5! &&& 3N'
&:A-" 5" "&"' 45 "-9 4 < 45 :8;;95::&-"!
N2!*M, ":8=&">A-"B8A !-7 45A-??&:$
:&-"59:! N,! N3' JJ- -7 9< 7-9B! .1F'
JJ- -7 -J89"! .11 <"B:' -=B! .23'
(8&"-8:' A-"B&&-"' -7 45 8";8;;95::5B
?-"<: 59&5:! .3M' #-=8" <9 :8995"B59 -7
45 79&<9:' -7 9<"A&:! <?7-9B! <"B
"B956@:! .32 5?-=&&-"' -7 :49&"5:W
49&"5: ! .NN &"<= B&::-=8&-"' -7! FN1
<?5:' -7 456 -6"59:' -7 =<"B:' -7! FN2

&=

JJ-:' -7 -=A45: 59! 5<B&">! <"B =<:S
-"J89 5L5A8 5B! 1.N$1F3 45 ?-"<:S
59&5:' 957-8"B5B J (<9 <><&"" B&::-=C5B!
C&& 3F 4- A- A4 <JJ5 :' B5: 9- 5B!
**2
B-' (-"W<B<! -"' 8>-! 4&:' B5< 4! L&& 1,M
(-"A-" -89! J< =5 -7! &L M+1
(-"=8A! -4"' B5! &:4-;' -7 #<=5"A5! C 1*F"
C&& .+2! . **! ..3
(-"-;-=&5:' >9<" 5B J %855"' =&I<J5 4!
M
9 <D5"' J -8" -8&:! F,2 5:&5>5B
J =C<! F3+ <;& 8=< 5:! 1.1
(-":' (5>! &C F.M
(-": 958&=! -9 (- 958=! :&5>-' -7! &C F1F!
FM. <&:5B! F2,
(-"! -9 (-8"! 49&: -;459! 4&:' ?&::&-"'
-' 4- 8 459<":! && 1.* &C F3+$F33!
12F
(-" <>85! &9 ! <' 98>5:! C&&& 122
(-" <>85! &9 B6<9B! -9B 8: &A5! C' .FF'
955"6&A4! M+F! 2+1 5"' -' 45
-659! C& 1, &"5B <"B 95=5<:5B! ,2
(-" <>85! -9B 4 -=5
(-" <>85! " 4-"! :5A-"B -9B! C&& *,!
N! .+.' L&& .3*
(-" <&>"5! L F.* (*1
(-" J9&::-"!$ B5:' B95 :@ 95< ?5"' -7 45
<4-=&A:-7! C&& 1.+
B5= (-" 5! <9B&"<! 9 N*! .*, =5A 5B
-;5! .N2 2555 8=&8:***
(-" >-?59 ! -8" B-! =<"B:' &"' A- =<"B!
&C 1*N! 1F3 <D5 :' 95&"7-9A5?5" :' -' 45
=5?&">:! L F,2 :A<;5:' 79-?' <9S
4-=-?56! 1+M <8:5:' 45 B5< 4 -7
5"9 ' -7 9<"A5! C&& *.F
(-" >-?59 ! -J59 ! ?<B5 &:4-;' -7 =<:S
>-6! L& 133' LA-??8"&A< 5B <"B 89"5B
-8 -7 45 A< 45B9<= A=&89A4! 13N' 5?-"S
: 9< &-"' <><&": 4&?! 1NF
(-" &>" ! -8" ! C&&& 122 ;;-:5:' ;<"&:4
;-=&A ! &L F*2
(-" ?-95"A ! -": <J=5 -7 9<"A5! &C *2.!
.2+ # F+, ":659:' -9 4<?; -"! F1+
C&! .FN' %85" &"! 13. 45
-">95::' -7 <?J9< ! C&& 2+ "' -"B-"!
NM' 45 45<B -7 =&5 <=PA<"' ;<9 !
F++ ;;-:5:' 45 8>85"-:! F.+' 5S
7-95 -85"! 1.M "B5<C-89:' -' ?<D5
;5<A5! 1F, (<B5 ;9&:-"59 <' 958L! 11.
-&":' -"BZ <><&": 45 ">=&:4! M**!
<C95! 2*1 &=5B! &L F+,
(-" ?-95"A ! :-"' -7 45 <J-C5! A-?5:' -'
">=<"B! L FM, 7759:' 45 85 B@ =5"^-"'
-' =&I<J5 4! F2,
(-" 958&=! (<B<?5 B-! &&& F+*
(--D 5< 4! J< =5 -7! L *N
(--9 <9D! 95< -7! &C *+N$***
(-9B<8"! -9B! C& *3
(-95! &9 4-?<:! 4&:' =5<9"&">' <"B! <AA-?S
;=&:4?5" :! &' **+ (<B5 -9B 4<"$

(

44 +" HK HE HB 6+!+"+$
6 "4 HE !"406 .";4
EEK E 4 4 4. E H
3 "4 3 +$ .M H 0" 4 'E
32 N +$; !" + +$ "4. + . +
+ +$ G4 E L ! . . 3
! 3+ 03 B 40 "43 + M+>" + 64
0 +$ & 004 + 3 "4$ 4 E+ E
#4. ,4 64 4. E E' &4 + 64
+M4" B +M "4. 43 64"4 E'H
D + ; + 64 0 +$ & !"4 ; .0
E'K EK " + 6 + " . EKB" EK 64
3 0 ; 4 EK + 34 ; 43 EKK
. ; + ; 4 . 3 4 40 + B E B B
+"4" ") BBK 88
+"4 &P4 ++" ."F
+"+". A") , H"
+"4 ; . .3+"$"+ ;&. , + , "
+" . 6+ ; 6 6 +" , HK !+A$
(! + H ' "" 4 34 ; . 343
H ' ' +M 4 ; . 43 . +
0 HK +""4 !+ 3 M 6 ." & ."
... EH 4 ". 43 + ; ; 0. 4
. ."3 ! + + ." E
+" . 4 " 6+!+$ & A. , 3 , EB
+" . . ! . +4 M 6 , + 44" + 64
4 64" . 3 , EH'
+" ." A+ 4 .03+ 4 ; "34" 64 L. "
+$ A4 ; + 3 8K
+" + #+"3 , < H E <

+"+ 4 ."3 . , K < , B8 BK
+" ; . 0 4, .343 E8 ("4!4.
34 ; . 343 64 0 4" , < K
+" + ."3 . , & . 9 BE
+" + A") . !" 4 E H " "
+" + . ; 4 A+ . L. "+$ " 64
"" . !4 + + #+ 3+ , KK + 64 0+ ! ".0 + ; 34" Q0 + , BB $ 6 H .00+ +$ 64 ; "34" H L Q. 4 6 9 +"34" + 6 ; H ' ."3+ 43 EB+ EBK 4$ 4 + >+ ! + 6M4 E8 6+ 4 + ; . . 4 . 0+ ! ".0 . . ." & ." E 004! + 6M4 9 06. 4 4 K ." +"" KE + 64 4 4 . #. 34 4$ 4 64 L. "+$ & 4 9 +$$4" E D 6 64 L 6 . "; (' #+ 3+ + 64 !"+!+ 43 "4 +". + +$." B + >40 + B BB 06. ".0 4" BBH L 40 43 4 4 B 0+""4 !+ 34 04 M 6 R 44 L Q. 4 6 H' "4. ; 4 64 "404 , 4 . 64" 6. 3 E + $434" .0 + +, 4" 6"+M 6 ; H 4 64 4J 4 0 ' 40+ , 4" !+M4" H & !40 43 ,) (3. 4" H 4 ; ! 43 L Q. 4 6 H """4 43 . 3 4 +))A : " + ' 6." 43 M 6 64 ; I " 34" +$ A." 4 ' / + 3 KH)

P

. ; +" K' 4 40 + E

(- 9 8 < 9 ' A !' & ')(
+", 4" 34$4 3 + 4 . . 3J)S ; . + , B K 4 6 0+ ; ; . 3 B . + 6+ /T 4 + / "4 06 . ; . .3+" EB + A." 4 O " EB + 4". + E8 D 4" 4 !43 + BE $$4" L . 3 !4 04 +" M." BE 3, 4 !4.04 M L . 3 BBE 0+ ,4" . + M 6 64 R 44 B B < E B ,' L40. 4P ' B' 40 4 !4" ; + + + L3 6 8 8 0+ 3 0 . L Q. 4 6 + ; 3"0+"4 !40 64 0 +3 +$) ." 8 40"4 " 0 + F +M + 6. ; 8 H 4$ 4 + 4"$4"4 64 !"+!+ 43 ; . "" . 4 M 6 4 U+ K 4" ; 43 + + + L3 " 6 8 44 #4 + . +!4 $$ 8 E + "4 & 0 + "4 + 4 + 6+ ; M 6 N. "3 4" , B + >+ #+"3 6 4", 4M M 6 R 44 . 64" 4 BHK + 9 . .0 + 8B +M " . ." . EEK 4 40 + EEK + 4 BEEB < , HK) + 4 & " 6+ ; . &!4. F4" +$ 64 + 4 +$ + ; ; + , B" V6 4" . 4 +$, B 4" 34 + . + +$, 8 H N+, 4" J ; 4 +$ E' 8 E' H 64 . 3 +$ 64 L. " +$ A4 ; + 3 $+"$4 43 B' H "+!+ . + !. " + 4" . ; + . !. " +$ L 6 B' + 3 + +$ 8EH & "+6 4""+ 9 " 4 8EH 4, + H8 & " D A" " ! "4 34 K8 .0 K8 A4 + . + B8 BK 8K "". 6+!+$, 8 "". L. "+$, 9 "". #+ 3 . ; 4 & ." L. "+$ 4 & ." #+"3 . ; 4 "". . 4 6 ! .0."3 . + 6J M4 B E B 7 "". +$."3 4 06. 4 4 + 6M4 BK K . M4" . 3 BK ". , 4 & " D . ; H 4 " 6 . 4 +$ 4 F 4 4 6

W=X 34$4. +$ 64 /"4 06 6." 4 =) . , B . 4 A") , '8 . . + 34 E8E . . + +$ 4 " < #+ < D J . ; +$ . .) ." & ." 9 40"4 ." < E BH 8 HE Y B B +Z) "J "4 43 H) / ". 43) >

))

0E H

<C<995f " -" ' -89J-"f &"> -7f =&&:' =5 59f -' %855"' =&I<J5 4f zz' 2M' "' ;9&:-"f .N1' &J59< 5Bf F++' 5A=&"5:' 45' =&5$;A"A f <"B' J5A-?5:' &58 5"<" $ 5"59<=! !F+F' 5A&=@:' <BC&A5' -' 4&?f F*M' " 9-$ B8A5:' <=C&"&:?' &" -' 45' =&<;5=' W <=f F.+' &:' <;-:<:!f F3.f F3M' A' 45' :&5>5' -7' -"5"f 1.M' &==5B' 4-9-f 1F1f 1FM ! f & <C<995f %855"' ;7f 459' 79&5"B=&"5:.' -' ">S =<"Bf &&&' 1,N' "! < 459&"5' =-6<9BC&C!' *FMf .IM.j G 59' &" 9&>85:' <' <9&:f 1M,' <CR&99A' 4 ' 5"9 ' # <C<:f (<9W8&:' B5'=<f 9&'!.F+ <C f:<5' -7' 45f &&&' .1Nf .M+f .M*f &C'1.F -"B& &-"' &"' *MMNf W!t' *M1' A' 7-9' 45' ! ?<&" 5"<"A5' -7' & 5' "<C f 1N.' &9: E5LS ;<":&-"' ;7' 45' "< f C&&&' H.+' &9<A' -7' ">=&:4' ?5"$-796<9@f !1MM' <5'!-7'&45' =&A5' <' 45' &?5' -7' 45' 9""64&f L&& !1.3! ' 1F.' -?? &:&-"' <;;-&" 5B' -f 5L<?&"5f !!1!.3' =&I<J5 4@:' ;<9:&?-" f 1.N' &:-9' ! -7' &95 -;<C5" 89<!!1.Nf -:' -7!J8&=B$' &">f E1.N' <>5:' -7' 45' :5<?5"f 1F+ ! 4&;@:' <=-6<"A5f 1F+' BB&&-"' -7' $7&C5 "56':=&&;:f 1F*' E&45&9' J8&=Bf 1F*' 8?J59' <"B' -6"59:' -7' 45' :4&;:' -7' 6<9f=<"B' ;9&S C< 559:f 1F.f 11+f 4$' 9<D5" <6D&"':" k -6<9B-7' 77&">4<?' ' & <6' (<: 59!!C&&&' F1.' k! & 0 k <6-94' <: =;f =L' *b%$;%X ! ' ! 5<?5:!' (9&i f -7' --B"5:J-9-8>4f L' ==' 6!*!' ' ! 5 459=<"B:f 5C&=:' -7' ;<"&:4' 98=;' &"$ 45f k F+N j <5!' -7' 45f F+N$F* 2f G 45' 8D5' J7;&C<@:' <B?&"&:9<&-"!E!F*,f &F*N!! FM+f 5"59<=!&":8995A&-"' <><&":'$ 45E ;<"&:4E ' F,M!' F,3f 1.N" L&!' K1DK@ ' 7759:' -7' ;5<A5'79-?' ;<&"f *3'E 4-' <5:'5C<A8<5B' J' 45' ;<"&<&EB:f 31' ' 45' <5:@<9?' ' B5:9-5B' <' f ?&J=-9:f NM'0 4 ' ;B=A''e -99&:' " &==&8"& 9&"A5'-7! 9<;>5' E 5"&== f (' B5!!&C' FM* f 9 * f ! 5C&==5!' -9B' <&?59f!&&f *,N' &&&' *F2f 5C&==5!' &9 49&: -759f &L!'!2*Z 0 k H 5C&==5!' &9' 8=&J59 !&L'M*Mf ! f 5C&==5!' B?8"1f &="' <"$ @:' ;=-!$HB&!$!21 ! 5 9<:' <99 !'2M R ! k@ kK ' k ' H 5C&==5!f &9' B6<9B!!:5"' -' 45f -659!Z &&&' F.,f F.3' 9&5B' <"B' 5L5A8 5B!' FF1!E FFMf H f e' ' !0 * 5C&&=-f 5-9>5!f 9A4 &:4-;'-7$ -9D!x4&:'&"$& :<==<&-"' 75<: f &'12' -75!' Z 0k E 9! -7' = "L&!E2 "-&5'! k 0 5C&==5!' &9' 5-9>5!' &&' *,N f *N2' * * ;C4<?E;-"A(<9W8&<$ 7' ' 4Ff <99' k k 5C&==5!E &9' 5"9 !f 3.f "5'!-7$ &<C ' E-974"v&459=<"B! <C=-7' 4 1 $32' 5"9 ' 8<9@:'D55;59:f L&' 2MM jk' k E E k R 4-?<:E * 5C&==5!' &9' -4"f 5L5A& 5Bf !=' ** ' E E -9 48?J59=<"B" ""5f -8" 5::' Z7f &L' M*Ff 5C&==5!' &9' -J59 f &&& !1.,' 9 ' &'"2F2f MFN &L'F*1!$F 1M' L&' .F E 5C&==5!' &9 $ &= <?f 4&:'A-"75::&-"f &&' NF z ;9 4& ?J59=<"B&& 8D5'-7' <:' 8B=5' -":8=:' x-"A:f 45$ L7-9B'A-"R89-9'!'NFf R -9 48?J59=<"B!' 8A45::'-7!f CRf *.$*2 *' E&="$ *N2' k j' ' E ! 99EE$ E 59A5B5:'7-9' 459'H+&=#'1,E R&=' &&' 3&

5C&==5f 4<9=5:f <9=-7' 5:?-95=<"Bf &&' 2+2'' &&&'.+*' C&'.N1!E1F,f 1,2" C8'.+,f 1++!1,*' 95;<95:' -' 95J5=f &L' 122f 2+F' -"759:' 6&4' -9B' 8::5Lf 2+N' 57855:' -' -J5' 45' %855"@:' :8?7-":f M*.' <D5:' <9"A<:=5f MF3' -5:' -' 8J f MFF' :S A<;5:' -' 45' -9B59V MFN' -":<J=5 5?S ;=-5B' -'5" 9<;'4&?f M,+' A' -7'< <&"B59' <><&": ' 4&?f .++' 578:5B' 45=;' 79-?' &">' 4&=&;f F*2$F*3' &:-7759:' -' =C<f MA@(*$ ' =& =-' -'5" 9<;'4&?f F+' &4' -'" -4"' -7' 8: 9&<f 3M' 5A5&C5:'<A-?S ?&::&-"' 79-?' 45' -;5f FF.' 567-8"B=<"B' &=5-!E ;9-;-:<=' -' B5: 9-' & f $NF ! &A5f A-">95::' <f -7' *MF3f &&&'.3*' <D5"f 6&4E #&==<' 9<"A<f J' <9J<9-::<f &C ! . , , ! &54-==:f 4-?<:" 4&:' A-?;=<&" f C&&&' 11+ &>& f (' B5f C&' '*F2 f -<&=5:f " -&"5' B5f 95"A4' <?J<::<B-9' -' J0 "><"Bf C' 133' ' 955"6&A4' 6&4' -9 48?J59=<"Bf 1NM$M+1" C&' .+$1* ' ' ;;-:5:' 45' ;<"&:4' ?899&<><f N3' &=& =&I<J5 4f *+*f *.3f *1F' &:' B5:;<A45:' &&" 5955;5x=!*M2f *2Mf *,+f .+*f .,Mf F21' & &&$ 4& ;f .2M' s#& 4' <9B&"59f FNF' "B' 45' A-":;&9<-9:f 11+f 1,.' &:' A-?S ;=<&" :' -7' ">=&:4' &" 597595"A' &"' A-=<"B! C&&' *F1f *FN" ' 495<5"5B' J' %855"' =&I<J5 4f *MFf *M1' 8;59:5B5B' J' B-' Q&C9-f *N2' 5" ' -"' <' ?&::&-"' -' 45' ! A-A4E :<5:!f F.1' ' 7 -"A-"7-9?&:' :f ;59:5A8 5B' J' =&I<J5 4'&="8' ! 4& >&7 f L&&' .1!&M13'& ! *' ' k mj -97-=Df 8A45::' -7'x 45' ?dB' 8A45:: !B&& R1NMR&& !M* 2' !' E& k $0' & =E& -97-==&&E 8D- -7f Q{7AA -6<?=' * -9?<"B f 5L;=-& :'-7, -c1-"!<;;95" &A5 E&"f -99&:f &9' 5"9 f :5" ' -' 4- -659f &&' 13N' "5' -=5 "@:' <=D'-7'4&?f 1NH& &:' 9&<=f 2*M' "B' 5L5A8&-"' M.' R k 30 -"9&:f ';' 'f ">=&:4' ?&":59' <' <9&:!E&L ,N' &:' 6<9"&">:' -7' B<">59f Q F!E*Mf -99&:RE& &9&!' -4"f &"' 45' 5 459=<"B:f =&B ++' <&":' 45! J< =5-7f ?-"<" V*.3 (89B59:@RC-?5"' <"B' A=&&=195"E<J <J4=&"f !!*31$' -J8D5B' &J &%855"' =&I<J5 4" -9&& *1*' 9 5=&5C5:' 9<C5!!&=337' ! -9 4<?;-"f 45' 489A4' <J!&&"' *M,+f L f **F -9 4f -5Bf C&j'.+1!& &:'=5 59' -' 45' &:4-; : <==<&-"' 75<: f &'12' -75!' Z 0k E 9! -7' = "L&!E2 "-&5'! k 0 ;C4<?E;-"A(<9W8&<$ 7' ' 4Ff <99' k k E-974"v&459=<"B! <C=-7' 4 1 $32' 5"9 ' 4-?<:E * -9 48?J59=<"B" ""5f -8" 5::' Z7f &L' M*Ff &' "2F2f MFN &L'F*1!$F 1M' L&' .F ;9 4& ?J59=<"B&& 8D5'-7' <:' 8B=5' -9 48?J59=<"B!' 8A45::'-7!f CRf *.$*2 *' E&="$ 59A5B5:'7-9' 459'H+&=#'1,E R&=' &&' 3&

%P

-9 -"f 49&: -;459f &L' 1NN' &:' < 5?;'
-' A<99 '-7 E 45 %8;-'" -7 A- :f 2++' &:S
?&::5B 79-?' 45 >8<9Bf 2++' L5A8 5Bf
22,
-9 -"f 9<"A&:f &L' 2+3
-9 -"f &A4:9Bf &L' 1N3!M+3!23Nf ' <J f
2*F' ' 894<?f 2*M
-9 -'" JJ5 f :A5"5 < f $6& 4 =&5 A-?7&:S
:&-"59:f && 1++
-96&A4f &:4-;'-7f 4&:'=5 59 -' 9-?65=' -'"
J89"&">' 5: <?5" :f &&& F,2' < 45B9<'
:5&6&A5 < '&"' *2,+f **.'
=<' -"5f L' F,2 ' L&' 2+f $2F
-65=f 9' =5L<"B59f C&' **+' &:' :59?-'"
-'" 45 A<>5Bf 6-=C5:!@ C&&'1,N' 8 4-9 -7
45 ">:&:4 489A4 < 5A4&:?!f 1,N (*$'
&:' :59?-'" J57-95 =&-' %855"f C&&&' *F2
8"' -7 5" f =&I<J5 4 89 -"f &' F*,'
=<&&6- <"A5 -7f 3*N' 59 9<&"&">f F..'
59 ?&9<A=5:f F.1' 59 J--D -7 -9<A=5:f
F.2f FF*!GF22' -"759:' 6& 4$<">5=:f 1+F'
59 A-":;&9<A f &&' *2M' 59 ;9-;45A&5:f
*,F' "B &" 59;95 < &-":f *,2' 45 <"B
7-89 ?-"D:' <995: 5Bf *,,' -"75::&-'" -7'<
A-":;&9<A f *,,f *,3' -"C&A 5Bf *3,' &=-'
-7 < <&"B59 <><&":' 459 <"B 459 < A-?$
;=&A5:!$.*F' 59 =<: '6-9B:'<"B 5L5A8 &-"f
.*3!.*N
8"59 '-7 &A47&5=Bf && 113
895?J;&>f &5'<f &C'.23' E

'-7 7955?5'" <"B C&=<&":' 8"B59 45
758B<':R@: 5?f &'*3f *N 0
@ 9&5"f -9"5 f -7 4-?-"Bf =5 57 -7f -'
9 4<9=5:0# f && .N2
@ 9&5"f 9&"A5 -7 =&-?-"Bf &C' 2,f ,*f 3*
@ 9&5'" -7 =8A4&W8&"f :55D:' <&B 79-?' 9<"A5
<"B ;<&"f && *2
J:59C<" :f &'F,2' &::-=8P-'" -7 45&9 A-"$
E C5"'<' 955"6&A4f F3*
@ <99-Pf &C'32
A4&"f 59"<9Bf #E *1*
@ -"" -9f 4&:'95J5=&-"f && '$.3,"@&C EN-!ENN
@ -""5 =f &C'N1' k' $ E
@ -""5=f =&-' <=-->4f C&&&'& ' 9-?&:5B
<'" 5<9=B-?f *F' 5'<"B 4&: 6&75 <D5'" J'
4<'" @ 5&=f .*' 578:5:' <=5>&<"A5 -'
@ 5&=f F, ' <9Q?<B5 8;-'" 4&:' A=<'" J' E
E 5&=f F, ' 5: -95Bf 1+3' 5C5">5:' 4&?S
:5=7'-'" @ 5&=f 1*F'Q &:'B5< 4f 1*F' EE
0$ E -""5=f -"f :-'" -7 45 <=->4f <9?<B5
8;-'" 4&?' !J' @ 5&=f C&&&' F, &:' =5 59
-' %855"E =&I<J5 4f 1*' 8::5L@:' A4<9<A$
k0 59 -7 4&" f 1*f (*$' "A-89<>5B -' 4-=Bf
-8 f 1F
!+@ -"45=f 8>4f 8AA55B:'<:' <=->4!/0C&&&
1*F' 65<9:' <=5>&<"A5 -' ">:<"Bf 1*F
@ -""5=:f 45&9 9& =9' 6& 4 45 @ 5&=:f
&#&&&" *+f .*f F,f 1*,'
77=5 f &9 4-?<:f C' 2+3 E K

>=5f -9Bf &==5Bf &C' 1+
>=5 4-9;5f 65"f &:4-;'-7 <9=&:=5f A9-6":'
=&I<J5 4f C&& 1+' 459 7&9:' <9=&<S
?5" f 1.$
=BA<:=5f &9 -4"f -9B -J4<?f J&:'&":89S
95A &-'" <"B B5< 4f && .F
=&;4<" f -9Bf &C' *NF
=&C<95If @ -8" f ;<"&:4 ?J<::<B-9 <'
-?5f L&&'*2,$*2.f F2+f 2.F
@ (<=5 f 9<"" f L&'*3,f *33f .*F
@ (-95f 5B<>4f &C' N3
?"&J-6f <459f <#5"5 &<"f &' .23
@ 5&=f -"'C&&&'*+f **' 5A-?5:' <9=' -7
9-"5f **' &:'A4&=B95"f **' 9&C5'" -8'
J'4&:'-"f <"B B&5:f *.'
@ 5&=f 4<"f 5=5A 5B A4&57 J' <"&: 9 f &C'*.'
(<99&5:' <'" @ -""5=f J8' &==$ 95< :' 459f
*F' (<99&5:' (E -"85=E:' B<8>4 59f *1'
&:' :A45?5:' 7-9 45 :-C595&>" '-7 P=: 59f
*1!*M' &:'=5 59 -' %855'" =&I<J5 4f E*3'
95;<9< &-":'-7 45$ ">:&:4 >-C59"?5"' -'
;8'4&?'B-6"f *N' <99&5:'-7 45 -8" 5::'
-7 9> =5<"B 459 48:J<"Bf .*' &:' :D&9S
?&:4 6& 4 45 ">:&:4 <' 99 &">4f ..'
89;9&:5:' 45 ">:&:4f .Ff .1' =-'-7 -&B
8::5L' -'<::<::&"<5 4&?f .3f .Nf -":5" :'
-'>' -' ">><"Bf F+f F*' ;;5<9:'<'A-?$f
F.' 5 <&"5B &'" ">:<"Bf F1f FM' &:'
-7759:' -' 45 %855"f 3E' k E >955?5" E J5$
! 655'" 4&?'<"B 45 %855"f F2' &:' 95 89'"
-' 95=<"Bf F2'0 (<D5:' 6<9 -8 45 @ -"S
"5=:f F,' 8::5L@:'789 =&59< 5?;:'<><&":'
4&?f F,$FN' ><&'" 95J5=:f 1+' 98:45:'
0 45 P=: 59 A4&57:f 1*' &:' 95< ?5"'-7
45 -8" 5::f 1.' -9B 8::5L@:' A<?;<&>'"
<><&":'4&?f 11' 5?;'-';-&:-'" 4&?f
1N' 4<"@:' 95C5">5f 2.' 5?<"B:' 8::5L@:'
:&: 59 7-9 4&:' 6&75f 2.' &J59< 5:' 45 <=$
=->J f 2F' &:' 9&8?;4f 2F' &:' A-89:5
7=&75f 2F' &:' 79&5"B:4&;' 6& 4 =8D-=f
F,1' 575< :' 45 A- :!EH-F3+' 5A-?5:'
:-C595&>'"0-7K P=: 59f F3+' "C<B5:' -"S
"<8>4 f F3*' &:' D=&<"A5E6& 4 9> =5f
F3,' 95;<95:'7-9EE6<9f FNM' 55D:' =&5=;'
79-?' 9<"A5f FN2" <AD:' 8"B<=Df 1+F'
575< 5B J' <"B-=;4f 1*.' E <AD5B J'
&B"5'<"B 45 A-:f 1*F' 85:'7-9;<9B-'"
<"B;5<A5f 1*Ff 1*1' @ 98>>=5:' -'95A-C59
4&?:5=7!E1*2' &:'7&"<' B575<'<"B B5< 4f
1*,' k k E
@ 5&=f &9 45=&?'x &9 9&<'" (<A JA=&?=f
L&'*,2f =,,!*,N E ?;9=:-" =k "-44&D 6&75f
*3+' L5A8 5Bf E ' le
@ 5&=f &9=->4 -"->4f ?&"59:' 4a -8">'
$ <9-'" -7 8"><9C<'" C&&&' F2'! ;;-:5:'
4<'" @ 5&=f 1F$ 5A-"&5D A4&57 -7 45
@ 5&=:!#'13.' &:=- <=! EM+*E -<"B5Bf
2+1' 5A-C59:'<"B &95456:' &&:'$6-9Df MFFf
E E 212' &:' <A &9& f @L&' *,M' 8J?&:!
=,,!*,N' -995:;-"B:' 6& 4' ;<&"f .+.'
W85"B-f (&>85=' B5f ;<"&:4 A-?& <"B59

P

<9D59f &58 5"<" f &"" 95=<"Bf L ' M*+f M*.
<9=&<?5" f ">=&:4f -7 *2.Nf &' *N*' " <"B
&&' 1MN' &J59 &5:' -7f &' .+N' 5 & &-":'
5"9 ' # f .** ' -"B8A ' -7f -' %855"
< 459&"5 B&:A8::-Bf 111$112" &&' .+F$.+M'
J-=&:45:' 45' <;<=' <8 4-9& ' A-"B& &-"S
<= f .*.f F11' <: ' :5::&-":' -7f &"" *MF2f
1MN' 5J< 5:' &"f -"" =&-' =<AD' --Df 12.'
=-:5' <"B' =<J-89:' -7f 1,2' 7 *MF2f 2FF'
9<" :' ;-659:' -7 J5W85:' -' 5"9 ' # f
21*$M11' 7 *MFNf &&& F,3 f =5A &-":f
F,Nf F3+' F3F' ;;-&" :' <' A-?? & 55' -7
-;&"&-"f F31' 7 *M1+f -;5"5B J ' 9-?S
65=f 13.f 131f 13,f M*, ' 7 *M1.f &9 ' *F2'
9&C&=5>5' W85: &-"" &"f -"" 599<9:f *13'
8;95?-' ;-659 -7f *M+' 7 *21Ff .N3f
F+*' 7 *M12f 13, ' 7 *M1,f 2*N' &9: f
-7 B6<9B # ' B&::-=C5Bf C ' 1++' <=5B
J ' -9 48?J59=<"Bf 12F' &9:' < 5?;'
-' ?<D5' < "-?&"< &-"" <9=&<?5" f 121f
2+F' &9:' -7 (<9 f C& *+N' &::-=C5Bf
.3' 45' 5A-"Bf ..f . .1' 45' 4&9Bf
.2+' (55 :f .23' >955:' -' J5 95A-"A&=5B
-' -?5f .3.' 4& 54<=f .3F' 5S
& &-":' 7-9 ;<9B-"" 79-?' -?5f M31' 5S
J< 5:' -"" 489A4 =<"B:f .N2$.N, ' :' B&:S
:-=C5B &"" B&:;=5<:895f F+N' 45' 7&9: ' ;<9S
=&<?5"' -7 =&I<J5 4f C&& ' 1+' ;5"&">' -7
<9=&<?5" f <"' *22Ff 1,N' 9-9->85Bf
M+F' (55 &">' -7f *M22f C&&& ' F+F' 5$
:-=8 &-"" -' <BB95:' 45' %855"" 7-9 < :5 =5S
?5"' -7 45' :8AA5::&-"f F** ' 59' 95;= f
F*1$F*2' 95& < &-"' -7 45' -??-":f F*, f
F*3' %85: &-"" -7 ;9&C&=5>5f F*N' 5$
?-": 9<"A5' -7 45' -??-":f F.+' 45'
%855"" >&C5:' 6< f F.F' 8J:&B ' &=
;<::5Bf F.M' &::-=8 &-"f FFN' P" 6&=&">S
"5::' -7 45' %855"" -' 5"A-8" 59' <' ;<9=&<S
?5" f ' *3F' 5A5::& ' 7-9' -"5f *32'
(55 &">' -7f *M,*f *33' 5?;59' -7 45'
-??-":f *N+' -=&:&-"" J5 655"" =&5%855""
<"B' 45' -8:5f *N* ' "B' -7 45' :5:S
:&-"f . .F' (55 &">' -7 ;9&=f *2, .f FM3'
5;8 <&-"" -' 45' %855"" 95:;5A &">' 45'
%855"" -7 A-:f F2F' 5 & &-"" &"" 7-9?'7-9
45' B5< 4' -7 45' 8D5' -7 -97-=Df F2M'
5::&-"" -7 *M,2f L& ' 1* ' (55 &">' -7f *M3*f
FF.' %8<995' -7 45' %855"" 6& 4' 45' -?S
?-":f FFFf FF1' <9=&<?5" ' -7 *M31f L&&'
2+' <9=&<?5" ' x*232 ' :8??-"5B -"" 45'
9&<' -7 (<9 f L&& ' .3Nf 45'%855"":' :;55A4f
.N+$.N.
<9=&<?5" ' -7 A-=<"Bf &"" 0*M1Ff & :' ;9-S
;-:<:' 95:;5A &">' (<9 ' 8<9 :' ?<99&<>5f
&C ' .*M ' ==-6:' 45' 8:5' -7 45' 9<":=< 5B
&J=5f .*, ' 5<::5?J=&">' -7 45' :<5:'
&"" *22+f C&& ' .23' <:&">' -7 45' -"75:S
:&-"" -7 <& 4' <"B' <J-=& &-"" -7 45' ?<::f
.,+' (55 &">' &"" ;9&=f *M2,f &L' 2*' "B'
&"" 5A5?J59 -7 45' :<?5' 5<9f .+F' (55 S
&">' -7 *2,3f L& ' *.+

<9?<f (<9><95 f 8A45:' -7' 4 ' (<9><95'
<9?<f 9&"A5' -7' 4 ' =5L<"B59'
<99f &9 &=&<?f &&& ' *** ' 9&5:' 45' &"S
A-=":4&95' ;9&:-"59:f .*F' 95< 5B (<9W8&:'
-7 -9 4<?;-"f C' *+f *1,f *31f .+2f .+,f
F**f FF3f FM2f 1NM" C& ' .+' ..f 1,f 2Mf 2Nf
,2f *1Ff *M1f .** ' "" =&I<J5 4:' 7&9:'
-8"A&=f C&& ' *3' "5 -7 45' A-?? & 55 -'
A-":8='6& 4' 45' %855"f .2
<99f <B f &&& ' 1NM
<99f < 459&"5f "&5A5 -7 &9 &==&<?' <99f
6&B-6' -7 -9B' <&?59f ?<99&5:' -89C
# f &C' *11' (<99&5:' -9B' 5 ?-89 -7
8B=5 5f #* .N' 59 B5< 4f *FN
<99 f -A -9f L&& ' 21' &:' ;=- :f 21$22
9&5B' <"B 5L5A8 5Bf 2,f 23
<9 f &9 4-?<:f C' *1+' -" 9-=59 -7 45'
-8:54-=Bf C&& ' *i ' 49->?-9 -":=5 59
-' 4&?f .N,f .N3' &:' B5& =4f F*F
<99 f &=&<?f L& ' 2.,$2F*
<9:-"<>5f &"C5" -9 ' -7 789"& 895 -7!/<' =BS
&"> -"f &' 1*
<9:-":f 45' 5:8& f 5L5A8 5Bf C& ' 2,'
<9:-":f -J59 f :5" ' J ' 4&=&;' -C59 45'
79-" &59:f L& ' .1' -&A5 -7 4&?f F+3' &:'
?&::&-"" -' ">=<"Bf F*F' 5<A45:' -"B-""
&"" B&:>8&:5f F*N' -A &95:' <?;&<"":' 4<= 59f
FM3' " 9&>85:' <' -?5f L&& ' *M,'
<9 &5:f 4955f &"" ">=<"B &"" *M.Nf &' *,1'
<9 &5:' -7 89-;5f &' F3F$F3,'
<9 9&B>5f C' F,Ff F,2f FNM
<::<8f ;5<A5 -7f C' 1+3'
<5f &A4<9Bf &&& ' M+,f 2.*' & 8=<9' &:4-;'
-7 -9A5: 59f <' -8"A&=' -7 95" f C&'
.,*' "" =&I<J5 4:' 7&9:' <9=&<?5" f C&&'
1.
<C&59f -6"$A=59D' -7 -"B-" ' 9<">5
:8&A&B5' -7f && ' 3N
<8=' -;5 x:5:' 89"5:A f && ' FM.f FN*f
1+2f 1*2' &&& ' *f *+f *Nf *3Ff .3*f F+2f
F**f F*M" &C ' *MF" &"" *M1.f *N3f .21f
.2,f .,2f F2.$F22f 3,M$F32" C ' *2f ..f
.*3f .NF' 4<9<A 59f .N1'
<8=' #' W ' <9<77< f 5=5A 5Bf C& ' F13f FN*f
FN.$FN2!1+2f 1M2f 1,Ff 1,,f 13+f 131'
C&& ' FF+
M * " ' ' (' ' 4 ' '
M ' ;f *+,f *12'0;f NM$N,f .**f .*3f
.M2f .2,f .MNf .2+f .3*f F*+f F.Mf F.Nf
1+.f 21.
<8=5 f &9 &=&<?f -9B' 95<:8959f -"" "" -'
-=5 "':' 9&<=f && ' M+2' (<B5' -9B' '
-4"' x-7 <:&"> f &&& ' .2,"&C' 2F*' (<B5'
<9=' -7 &=:4&95f C' .2*f F**f FF.f "B'
! (<9W8&:'-7 &"A45: 59f F,M' &>4' 56<9B'
<' 45' 9&<=' -7 45' 8D5' -7 -?59:5f F3.'
C&' *Mf *F3f *N.f .+Mf .N1' -9B' &>4'
95<:8959 -' %855"" =&I<J5 4f C&& ' 1F' %;'
;-:5:' <= 59< &-"" -7 45' 9< 59' --Df 3*f
.F2' " 59 <&<< 4< %855"" <' &&:&8'
-8:5f . ,1f F*,f 1F+" C&& ' F**" GL' !FF*

<8=▯:' 9-::!' ;95<A459:' < !' 9 'M*M ' 8?8=' < !!' C&' 2*!' 8: ' <9B&"59' < !' .N+' %8`-&& E =&I<J5 4' < !' C&&K ' *F2 <I!' 8&:' B-!' :5A95 <9 ' -' B5 %8<B9<!' Co ' 2.M 5AD4<?!' &9' B6<9B!' A-775959' -'%855'" (<9 ! C&' *3" # .F*' C&' *,' 5AD4<?!' &9' 5"9 !' 5L5A8 5B!' G-H11M 559:-"!' J89" !' &9 ' .N2E -&85E7 9 5' 5 'B895!' C&&& ' 11N' (*! ' 5=4<?!' C&' *,1 5=4<?!' &9' &=&<?!' L&' *N1 ' "' 8J=&"!' .*, ' E 5<B:' <'" <9? ' <><&": ' 45' 95J5=:' &'" (8": 59!' .*N ' "' =<95!' ..* ' "' 599 !' ...!' ..F!' ..2' 5?J9-D5 ' 4 ' 59J59 ' 5"& !' :8;-:5B' <8 4-9' -7' E (<9 &'" (<9;95$ =< 5!▯ 9&5B' <"B' 5L5A8 5B!' L&&' M13' 59A !' 5"9 !' :&L 4' <9=' -7' -9 48?J59=<"B!' k &' *31" &&' 2*3!M .1" &&&' *F. Ex*MF2 '" *2*" x*MF.*!' &C' F,'' &&&' .+*' E 59A !' &9' 4-?<:!' J9- 459' -7' 45' <J-C5!' E&&&' *F.!' .*M ' 8"># ..*$ 59A !' 4-?<:!' :5C5" 4' <9=' -7' -9 48?J59S =<"B!' C&&' .+F!.+, E ?;=&A< 5B' &'" < 4-=&A' E &" 9&>85:!'1++!131'' C&&&' *MF" &L' .FF!' F,*!' 0E1*.!' 122!' 123!' 1, .!' 2+N$2**' ! 5J5=:!' M*.!' M*F!' M*M!▯ MF.!' MF2▯<"B▯ (*$ ' ; ,▯' <"B' (*$ ' MM*' ' 'E.++!' F1M!F1,!F1N!' U11 E L5A8 5B' E< ' -9DE!' U1C 59A !' &9' 5"9 !$C&&' **3!' *.+!' .*.!' .1+' C&&&' *MF'' &L' 2F,' (*$ H L" F3N' 5A-?5:' =&I<J5 4!' 2.+!' 2.*!' 2.F!' 2.2!' 2F*'' L&&' **! k 5&>4 4' <9=' -7' -9 48?J59=<"B!' <"B:`" ' -' 45' -659!' L&!' 2*2" (&:' B5< 4!' L&&' **2' (*$ ' ▯ 599- !$ &9' -4"!' C&E 1.M" k (<B5' ;95:&B5" ' -7' (L&": 59!' L' 2F,$M1*' ;;-&" 5B' B5;8 ' -7' 95=<"B!' L&' .21' &:' >-C5"&9<5" !' L&&' *N2!' *N,!' .+* 59:5A8 &">' =<6:' <><&": ' < 4-=&A:!E&&' F1* 59:4-95!' ;5 &&-'" -7'< ?-"D' -7!' &&' 1MF 5 59J-9 c>4!' 7-8"B< &-'" -7' 45' :55' -7!' &&' 13* 5 59▯:' ;5"A5!' <"B▯ - 459' 9&J8 5:E -' -9"5!' <J-=&:45B!' &&" .**' E E ` -!E <=&59!' &' F,,!$F3*!E 1,1" && '▯.+.' 'E&C MMM" C&' 13+!' 13M E E 5 95!' &9' &=&<?!' &D' 1*F' 'C E .FF!.2.!' F**!' F*,!' F2*!' 123" C&!' .1!' *NF 5L4<=!' &9' &A4<9B!' C&' M*2' 4&=&J59 !' 9&"A5' -7' <C- !' C&'E.M2$.2N!' $FF.!' FM1!' M++&" C&&' .3" 2. 4&=&;'" 9&"A5'-7' ;<&'" x<7 596<9B: 4&=&;' ! && ' FM1' ' # .N2' C&' **N!*F2!' *F,'' *M*!' *NF!' k . .,!' .F+$.FF!' .F,' (<99&<>5' 6& 4' %855'" (<9 !' .MF!.MM!' .M2!' . ,.!.,2!.N3!.NN!' F+N!' k 3.2!' F.N!' F13!' FMN'▯F2+$E 5<C5:' ">=<"B!' F2*!' F2F!' F23!' 1+F!112!' 1M2!' 1,F!' 13+!' 13.!' 131!' M+F!' 2*2!' 2*2"E2.1' B#-A< 5 ' 45' :8AA5::&-'" -7' =&I<J5 4!' C&&' F' L;5A S &">' 4<' 45' 6&=E <A' <:$ 45' &=' B&A < 5!'E1! & .3!' F+!' F*!' FF' 7759:' 4&:' =&<"B' -' =&I<S J5 4!' F1!' F2!' M.!' ,*' (<99&5:' =&I<J5 4' -7' 9<"A5!' ,.!' ,,!' 3F' 5"B:' B5' %8<B9< <:' 4&:' <?J<::<B-9' -' -"B-"!' N*!' *++!*F3!' *1+!' *,F!' *N.$*N1!' *NN!.++!.+,!.*2$.*3!' ..*!' ..F!' .FF!' .21!' .2M' A:5' ?5" ' -7' 45' ">=&:4' <4-=&A:' <><&": ' 4&?!' .2M!' FF2' 95C5" :' 45' -;5' 79-?' -LA-?S ?8"&A<&">' =&I<J5 4!' F1,!' F3*!' F32!' 1*2!' 1F*!13F!' M+M!' M.+!' 2F1!' MF3' -78:-:' -' <&B' 95J5=&-'" &'" 95=<"B!' C&&&' *2!' 2N!' N+' ;;9-C5:' -7' 45' %855'" -7' A- :▯?<99&<>5' 0 6& 4' <?=5!' *1M!' ...,$..N!' 1M,!' 1,*!1,.!' 1,N"E&L' *3.' <"B' (*$ ' &:' 755=&">:' -S 6<9B:' =&I<J5 4!' *NF' "B' -' 45' %855'" -7' A- :!' .*,!' .21!E.N3' &:' A4<9<A 59' <"B' 4< 95B' -7' 4595:!' F*F' L;5=:' 45' ">=&:4' <?J<::<B-9' 79-?' ;<&"!' F.,!F.3!' F2,!' F23!' 1*F' P"$6&=&">=' <B-;' :' 45' A<8:5' -7' (<9' 8<9!' 1*1!' 1FM!' 21F' (*$ ' M11' &:;=5<:5B' <' 45' -;5▯:' 5LA-?S ?8"&A<&-'" -7' =&I<J5 4H' L' *.' (*$ 'E,3' &:' 95=8A <"A5' -' W8<995=' 6& 4' ">=<"B!' ,N!' .F2!' .1.!' .12!' .1N' 99&C<=$-7' &B-=&=' &'" ;<&"!' .M+' 5A5&C5B' J ' <6=B" !' .23!' .2N!' F*M$3*3!' F,+!' 1+N!' 1.2!$1F*' (<D5:' <' 95< '$6& 4 ">=<"B!' 1FN!1,N!' 1NM!' 2*,'' L&' .F!' F1!' M2" 2M!' 2,!' N*!' **N!' .+M!' .+2!' !.,+!' FFN!' F2F!' F33!' FN,!' 1+F!' 1+2!!1*M!' 1..!' 11F!' 13.!▯132!' 2.N' 59:8<B5B' J ' k 45' -;5' -'5L5A8 5' 45' A5":895:' <><&": ' =&I<J5 4!' 2.+!' 2.*!' 2.F!' 2.2!' 2F*'' L&&' **! *F' &:' C&M6 ' '" ">=<"B!' 21!' *M,_*2F!' .33!' F+.!' FFF!' F2+!' F2,' &:' ;95;<9<&-":' -7' 45' 9?<B<!' FN1!' FN2!' FN3!' FNN'E1+1' &:' "5>-&<&-":' 7-9' ;5<ABf 1*+!' 1*1!' 1.*' &:' "<C !' 1.,!111$112!11N!1M1 ' 575<' <"B' B-:&?A&-'" -7' 4&:' 7=55!' 13+' $' E \' M*2 E -6' <775A 5B' J ' 47:' =-::5:!' M*N' ;;5<=:$' -' 5L 8:' 7-9' 45=;' J8$&:' 9578:5B!' 2.." L&&' .!' **N!' *.N 4&=&;:!' E 4-?<:!$8"B5$ (-95!' &&',2' 4&=&;:!E 5<"E -7' -A45: 59!' C&' $**M 4&=;- !' =5?5" !' &&&' 2.1'$ 4&=;- !' C&' **M!' . . . 4&==&;:!' <=:&">4<?▯:' :5A95 <9 !' L&&$.*3!' E.*N!.F3!.1M' ▯ E &AA<B&= !' &' *,, &AD59&">!' &9' &==&<?!$C' FFF' ?J<::<B-9' <' <9&:!' 13F' &:'&" 59C&56'6& 4' 45' &">' -7' 9<"A5!' 13M'$C&' *NN &"D&5' =58>4!' -9' (8::5=J89>4!' J< =5' -7!' #' E 2*$M1 &=>9&?<>5' -7' 9< 5!' &&&' 32' !' \' W4 ' ▯ :D5 ' <8:5:' -7' B&:A-" 5" ' 64&A4'=5B' -' & !' 32!' NM!' NN' Q &:&">'<' -8 4!' *+*!' *+F' k E#&-=5"A5E-7' &=5' =59> !' *+F' &E:&">' &&' QQ <: 95!' *+F' -&&&A<: =5!' *+M' $ 45' G 95J5=:▯;5&&-"!E*+M' (89B59' -7' 45' A4<"$ 55==J7' -7' &"A-="!' *+2' (8: 59:' &'" -"S B-"!' ***!' E**F' $ 45' D&">▯:$<": 659' -' 45

9-J`&:! **1' -"78:&-'"&"' &"A-=':" A4<; 59S
4-8:5! **3 E 8995"B59' -' 877-=D! **N'
45' :D5:! *.*' &:&">'&'" -9D:4&95'<"B'
45' -9 4! *.F' A5"5'<' 5C59=5 ! *.1!
*. ! *.,$*.N! *F*$*FF! *1+! *1.$*11'
<"A<: 59' 459<=B' :5"' -' -?795 ! *1,'
-J=5:' >< 459' 4595! =Z $=Z=': 5J5=:'
?<9A4'-'" -"A<: 59! *M.' -8"A&=-7 6<9!
*M1' -"B&-":! =7=,' -'J5' <D5'" -' =&5
D&">! *MN! *2.$*21' -J5= A-8"-P <'
-9D! *,.' -8"A&= <"B' A-"C-A<&-'"<'
-?795 ! *,M' <?5:' -7' =&-:5' ;95:5" !
*,M! *,2' 45' <>955?5"' -7' -"A<: 59!
*,3! *3*! *3F' 9&<=:' -7' 45' ;9&:-"59:!
.*+! .*2' 9&<=:! .*M! ..2'
&=D&">-"! <?5:! &:4-;' -7' 894<?! &:'
:59?-'"-'" 45'B5: 98A&-'"-7' ' <8=@:'A<S
45B9<=! C&&'F12
&"<9 ! 5A95 <9 ! &'" ">=<"B! L&'11,$1M.'
&" 5<B-! " -"&-! 4&:'C- <>5' -' 79&A<! C&&&'
1.M!1.2
79<-<' &<' 45' =&<""-=! ">=&:4'<"B' 9-"A4!
&C'*2M" #' *F2" C&&' *,*' C&&R' *MN! 1F,!
1M*'!V'F.2! FMM! 1.N$1F*'L',,! Fi*'
L&'*N!*1.' L&&'1' 9&:4! 12F
&8:' # !' -;5! 5=5A 5B! #) $FF+' "C& 5:'
">=<"B' -'J5' 95;95:5" 5B'<' 45' -8"A&=
'-7' 95" ! FF+! FF*' 95C5" 5B'J' 4&=&,'
' 79-?' 5&LA-?78"&A<&"> %8-5'" =&I<S
J5 4! F1,' 578:5:' ;59?&::&-'" -' ">=&:4'
<4-=&A:' -'<5"B' 45' ">=&:4' :59C&A5!
! 1,F' 4&=&;@:'=5 59' -'4&?! &&&'..N$.F*
&":'# !' -;5! C&&&'.FM"V'N$*.!" LA-9<$
?8"&A<5:' =&I<J5 4! 2N! E 1N! *M+!'F,+!
0 3N1
=<>85" 45! &'" <C95! C&&'M*F' "' -"B-"!
M*3' ?;-?:'<"B';9->95:.:' -7' 45' B&:$
!5<:5! M*3' L 5"' -7' =&-' ?-9 <=& '&'" 45'
E A& ! M*N! 2FF' "' 599 ! C&&&' 1*1! 1*2'
><&'" &"' 95=<"B! L&! *32' "' A-=<"B!
L&&'**+' m !
=<" <>5"-! (<9><95 !&&! *3N' 4' -=-'
=8C&-95:' <D5'" J' -"B`!<"B' 45':-=B&59:';8
-' 45':6-9B! C&&'1F,
=?-8 4! <' -"B-'" A89<5:'=5 59' -' 45'
(<-9'-7! &&! 1,*' A5"5'&"' 45' 4<9J-89!
C&&&' 13.' "><>5?5"' 6&4' 45' ;<"&<9B:'
-77! L&&' 12N! 12+
-&:-"&">! <A'<><&":! B5A=<95B'4&>4' 95<:-"!
&'F+N
-&:: !'A-"7595"A5'-7! C&&'F3*
-&859:! 45' 8>85"-:'B575< 5B'&"! C&&!1*N
-=5! 9 489! C&&'1.3' &:'A-":;&9<A ! 9&<=!
!&<"B'A-"B5?"<&-"! 1.3! 1.N
-=5! B6<9B! J9- 459'-7' 45'<J-C5! R-&":' 45'
A-":;&9<A'<><&":' =&I<J5 4! C&&'1.3'
-=-& (<9><95' =<" <>5"5 ! -8" 5:.:'-7
& <=&:J89 ! &! **1!'**M" &&'*3N' <: 45'
$ A<95'-7' 9&"A5:.:' (<9 ! *N+! "' 45' 8"'
-7' 5" @:'A-":;&9<A ! *3N! !*N+" &&&'F*N!
' F.,! !F.N' &59'< <&"B59! F32!IF 3,' A9
5L5A8 &-'" <"B' :8;;-:5B'A<8:5:' -7'&! &C'
**3" *.+
-=5! -9B'(-" <>85! 5=B5:':-" -7' 45'<J-C5!
&&'*N*' '" (-95:.:' 9&<=! FN2'&&=': .,!
.2+' <B' ?<99&5B'<' 5C&=5! F*N' 5"'
& -' 45' -659! F.N' 9&5B! 3F*' &H5A8 -B!
FFM! 1F*' (*!
-=5! &9' 5-7795 ! -8">59' J9- 459' -7' 45'
<J-C5! &&&'F.2! FFF! FF1'" C&&'1.3'
-=-! 5>&"<=B! :5A-"B'J9- 459' -7' 45'<J-C5!
5?;=- 5B'<' <9&:! &': .,M! $.,2'" &&' *N*!
13+' &:'5<9=':=&75'<"B' 5B8A<&-"! &&&'.F!
.,' -?;-:5.:'=&-'79<A'() 5'P"&<=5'AS
A=5:&<!@:.N' -" 5" :'-7'4&:'J--D! FF$13'
'&:':5"' -' ">=<"B! 1N' :'5775A ! M*!
2F! M,' (<B5' <9B&"<=! *33! R-B'=5><5H
*3N! *N.! .+2$.+3! ..,' 5A<=5B'J'
45' -;5! .3' &:'J--D! ..N! .F.! F*+!
&:'<;-=->' -' 4<9=5:'#! F*+! F1M! FMM!
11M"&! .,+! 1+.!1*M' &:'<AA8:<&-":'-7'
5"9'# P'B&:A8::5B! 21*$2M," # 2.!
.NM' 5$5B&:'4&:'J--D'<' <>-'B& <9B<V
C&'31! 3M' <?5B'=5><-'-' ">=<"B! 3,!
N+! N*!*+2!*+,!*F.!.1F! .11! .12! .13!
.M+! .M*!.2.! .21! .22! .23' ' <=<&:!
.2N' 5 89":'-' ">=<"B! .,+!...'
x 4& 54<=!.,2' &:':;55A4!.,H.3*!.31'
5A5&C5:' ">=<"B'<><"' &"-' RR5' 489A4!
.3,'.33!.N,!F*F' 5R5A 5B'7-9'4-'-;5S
B-?! F1.! F11! F,+' &:'=5 59'-' 9<"$
?59! 1+N! 1*F' (<B5' 9A4J&:4-;!-7'
<" 59J89 ! 1.N! 111! 12+,121 H &:'=<S
J-89:'<' 45' ;59<5A8 &-;! 12N! 13+! 13*!
H3M' F "56"A985=&5:'<' <" 59J89 !
M*1!M.1!M.2' &:'B5<4! 2.,$HM.N"C&&
0$1' 9A4J&:4-;' <9D59@:'"<?5 7-9'4&?! C&
!2F*' z:'A4<9<A 59! MF.' C&&'1+! MM
-=5! &A4<9B'B5'=<"D&=5B'<! <C&<! &'**1'
&&'*N+ E !
-=<9B! &9' 8>4! C&'1FM
-=&"-! H<;<&"! &C!*2+' ! ! !
-=9-! ?89B59:' 45' 8D5'-7' 8&:5! C&&
1NM E
-?59-! &9' 4-?<:! C! *3,!*NM
-?795 ! &&&'*FM$*F,!*M+" C&&'.*,' !
-"5J$ &:4-;!-7' &"A45: 59! 4&:'J<B'A4<9<-$
59! #.23! FF*! FM2' &:'?-"-;-=! 112'
5;9&C5B! C&! 2F! "' C< @:'A-":;&9<A !
*,1' E E
--=5! <; <&"! L&'*2' ' !
--9'=<6:1' ">=&:4!&',2' =5>5B'A<8:5:'-7'
45'>9-6 4'-7';<8;59&:?!,,' 5C595'<A:'
"><&": 45>9;6 4'-7C<>9<"A !,3' =<&?:'
-7'<>-'<"B&9<;-5"A !,N !
-;5! &9' 4-?<:! !<79&5"B' -7' &9'H 4-?<:'
&(-9-&! &&'1+.
-;59 !"-' 45'-9&>&"<=A<8:5-7' 9&:4' ?&:59 !
R'R .2M' ' R E
-;4<?! &&' -4"!$;5<D59'-7' 45' --?-":!
L&! FF.!FFF' m E' k!
-;"=<R-'" -7' ">=<"B'&"' 45 *2 4'A58&89

)

( ) V

%P

&'F' :' 5"B5"A' -' 95?<&'" : < &-"<9 !' 1!' <8:5:' -!' 4&:!' [' -9 <8= !' B?&9<=!' &L' FMM!' F22' -9 -!' &9' 4- ?<:!' &&'2+2' -9 =<"B!' 45' ;<"&:4' 9?<B<' -7!' L&&'121 "><>5?5" ' -7!' 12M$12N' -9 :?-8 4!' : < 5' -7!' &'" *MMN!' C&&'23' "B' &"' *M2+!' .2* -9 8><=!' 9-8J=5:' &"!' L&' *1*' -9 8>85:5!' 45&9' C- <>5:' -7' B&:A-C59 !' C&&& 1.3' 45&9' :=<C5' 9<B5!' 1.3' - 59!' &9' &=J59 !' C&' ** ' &=-9&5B!' *, 5 59' -!' FN -65=!' &&&'133' -659:A-89 !' &&' .,1' -6&:!' <B !' C' .,F' -69&5'4<">5B!' &L' .+2' - "&">:!' B?&9<=' &9' B9&<"!' -AA8;&5:' & <C95!' C&&' 1.M!' 1.2!' M*1'' &L' *3.' - "&">:!' &9' B6<9B'x 45'5=B59 !' :5" ' -' 95S =<"B!' &&' .,F!' .,1 - "&">:!' &9' B6<9B'x<7 596<9B:' -9B' - "S &">: !' < ' -8=->"5!' &C' F23!' 1FN' 9<5 !' (' B8!' &C' F31 9< 59' --D!' 45' ">=&:4!' &C' 13F$132' &9:' B9<7' -7!' # *1.' :' <' A-?;9-?&:5!' *12' ;;-:&&-"' -!*,2!' .N.' 9<" ?59:' :4<95' &"' &!' FN*!' FN.!' FNF' 5C&:&-"' -7!' &"' *MM3' <"B' *MMN!' C&&' .2!' ,N$3*' B-; 5B' J' 45' A-A4' 9-5:<" :!' *+N' 95<A459:' -7' 45' *2 4'A5" 89 !' &' F,;'' C' N,' 95?8"&95' 95: 9&A 5B!' &' .N,!.N3'" C&' **F!' .NF'' C&&!' .+ 95:J 59 !' B5 5:5B' J' %855"' =&I<J5 4!' L&&!' M11 95: -"' <":!' ~&5' ">=&:4' <9? ' < !' C&&' ,+, 9&A5:' -7' 7--B' &"' 45' *2 4'A5" 89 !' &' .*$.2' -?;<95B' 6& 4' 6<>5:!' .*$.2' -?75"A5S ?5" '-7' 45' A4<">5' &"' ;9&A5:!' .F' 9&A5:' <9 &7&A&<' 5"4<"A5B!' <"B' A-":5W85" ' :87759S &">:' -7' 45' ;5-;=5!' FM 9&5: ?<"!' &C' .+1' 9&?59:!' 45'7&9:!' &C' 131'' C' FN.' 9&:-"59:' -7' 6<9!' L' .MN' 9&C< 559:' <"B' ;&9< 5:!' ">=&:4' <"B' 95"A4!' #! *F2" C&&' *,*" C&&&' 2N!' 1F,!' 12*!' 12.' &L' F.2!' F2M!' 1.N$1F*'' L' ,,!' *+3!' F,*'' L&' *N!' *1." L&&' 1 9&C&=5>5' -7' <9=&<?5" !' B5J< 5' -"!' C&&&' F*N' 9-J< 5' <"B' (-9 8<9' A :!' &' .1,' 9-A=<?<&-":!' A' -7!' -" 45' 9- <=;959-><S &C5!' &&&' FN+ 9-A -9:!' J5>>&">!' ;8"&:4?5" '7-9!' &' 3M 9-;59 !' : < 8 5' -7' &" 597595"A5' 6& 4!' &' F1' 9-;45:&59<!' J5>>&">!' ;8"&:4?5" '7-9!' &' 32' 9-;45A&5:!' 6&=B!' 49-8>4' ">=<"B!' C' .*F' 9- 5: <" :!' &' *F+!' *,1' 45' 49&: &<"' J9-S 4594--B' -7!' *, .'" && .2!' F.!' F1!F2!' ,*' 45&9' B<">59:!' F,!' ,*!' ,F!' NF' <" ' -7' 8"&-"'<?-">' 45?!' *1M' 45&9' B&77&A8=&5: <"B' C&-=5"A5!' .,+' -' 9-5: <" '?<9 9' &"' 95=<"B!' .NF'' &&&' .1.!' .1F' <"B' (*! ' 45&9' &?;98B5"A5!' 1M.'" &C' FFF$FF1!' 1M1' &:=&D5' 45' 9< 59' --D!' 132' 45&9' &"S -=59<"A5!' C' .N*!' .N,!' 1N+!' 2*F'' C&' ,.!' ,M!' *N3$*NN!' .+.' 95<B78-' ;59:5A8 &-":' -7' 45?!' A4<;!' LLL&&&' 1M3!' 12N!' 1,.!' 2*,!' M*3' 45&9' 5L;5A<&-":' <' 45' <AA5::&-"' -7' =&I&&J5 4!' C&&' *F!' .+' &77595"A5' -7' ;9&"A&;=5' J5 655"' < 4-=&A' <"B' 9-5:S <"!' .F!' ,F' 5A&=:' <BC&A5' -' 45' 9-5:S <"' J&:4-;:!' C&&&' *+.!' *F1' 5' \' *2F' &L' *3*' < 5'-7' 9-5: <" &:?'&" ">=<"B!' 1!' 9-5: <" &:?'<"B' ;9&C< 559&">!' *+3' '" 45' -" &"5" '<"B' &"' ">=<"B!' L&&!' *! 9-5: <" &:?'B&:=&D5B'J'%855"' =&I<J5 4!' 21.
9-5: <" :!' 95"A4' 4' 8>85"-: 9-5: <" :!' A-A4!' &C' 2F!' F+M' 5>&"' -' 95:&:'&"' A-=<"B!' C&' 2.*' 5&&-"' (<9' -7' 8&:5'7-9' <' 957-9?<&-"!' C&&' *+3' 59' <":659!' *+3' 45&9' <B-;&-"' -7' 45' ">=&:4' 9< 59' --D!' *+N!' ***!' **F!' **M' 5S :98A&-"' -7' 4-' <JJ5 :!' **2!' **,!' *.+' BB95:' -7' 45' -9B:' -7' 45' -">95><&-"' -' =&I<J5 4!' *.*' 59?' ?<B5' J5 655"' 45' -<=&:' <"B' 9-5:<" :!' *.3!' *M*' -":8=<&-"' -7' 45' A-&:4' =5<B59:!' <' &9=&">!' *M*!' *M.!' *MM!' *M2!' *3,' 95:4' <=4<"A5' J5 655"' 45?' <"B' %855"' =&I<S J5 4' *N3!' ..1' 45&9' <B-;&-"' -7' 45' 5"5C<"' B&:A&;=&"5!' .21!' .M,!' .2,' 4<9<A 59' -7' 45' 57-9?<&-"' &"' A-=<"B!' .2N!' .NN!' F+*!' F.*!' F.1!' F.M' 'A-?78S "&'-7'95=&>&-8:' &" 595:' :'6& 4' 45?' 8"6&=S =&">=' <B?& 5B' J' %855"' =&I<J5 4!' FF.' -":5W85"A5:' 5L;5A 5B'79-?' 45'95 89"' -7' (<9' 8<9!' F2.!' F2F!' F2,!' F2N' &-:' &"' B&"J89>4!' F,2!' 1+,!' 1+3" C&&&' 3.!' *+N!' *1.' 8 9<>5' -"' <';9&5:' &"' B&"S J89>4!' *11' <5' -7' ;<9&5:' &"' *222!' *23' 9-5: <"'"-J=5:' 5"A-89<>5B' J' =&I<J5 4' -'95J5=!' *,1!' *,3' (5<:895:' -7' 45' 5"59<=' ::5?J=!' *,2' 45' -9B:' -7' 45' -">95><&-"' &"' <9?:!' *N+!' *N.!' .+*!' .+2' 5A-?75"B<&-":' -7' 45' ">=&:4' -8"A&=!' .+.!.+F!' &C&:&-":'<?-">' 45?!' .1+' P"6&=&">"5:' -7'%855"' =&I<J5 4' -' A-"'"5A'459:5=7 6& 4' 45?!' L' F+!' 11. 9-5: <" :!' =5?&:4!' <D5' 9578>5' &"' ">S =<"B!' #' F++!' 1+3 9-5: <" :!' 9&:4!' 45&9' B&77&A8=&5:!' C' 1*N 89&<"&:?!' A4<9<A 59' -7!' L' *+N 89&<":!' 45&9'=-<=!' L&&'21,' -6' 95< 5B' J' =&I<J5 4!' 21,' 59:5A8 &-"' -7' 45&9' ?&"&:59:!' M13

! 9('B30BG%A'9' &:4-;'-7' W8&S =<!' ;<"&:4' <?J<::<B-9' -' -"B-"!' C&&' N*' &:' A-995:;-"B5"A5' -4' 45' :<5' -7

%P

;<9=&5:' &'" ">=<"B!f NF$NM!*++' &:' &" 59S C&56:' 6& 4' 45' %855"!f *1F!f *13' &:' =5 S 59:'-'" <77<&9:' &'" ">=<"B!f *,*$*,F' &:' -;&"&-'" -7' 5A&=!f *3F' P9>5:' 4&=&;' -' &" 597595' &'" ">=<"B!f .+.!f ..+!f ..*' 5S :&95:' =&I<J5 4' -' 95A5&C5' <' "8"A&-' R79-?' 45' -;5!f .1F!f .,,!f F+3' 5A95' <BC<"A5:' ?<B5' -' 4&?' 95:;5A &">' =5 8B=5' ?<9S 9&<>5!f F+N!f F.2' &:' A-"C59:<&-'" 6& 4' =&I<J5 4' -'" 45' :8JR5A!f F.2!f F1N!f F3F!f F31' "B' 6& 4' 5A&=!f FF1!f FFM' ' < 6< 59' ;<9 ' -'" 45' 4<?5:!f F1N' &:' :;&5:' < ' -89 f FN,' &:' 4-8:5' 45' 7-A8:' -7' A-":;&9<A !f FN,!f 1,,' 575A &-'" -7' 4&:' :5A95 <9 !f FN,$FNN' 5' %8<B9<&:' &" 59S C&56' 6& 4' 45' %855"!f 1+*!f 1+.' 9 &A=5:' <=5>5B' <><&":' '4&?!f 6& 4' 4&:' <":65 9:!f 1+.' .$ ' 1F*' A5"5' < ' 45' -8"A&=' J5 655'" 4&?' <"B' 5A&=!f 1F.!f 1,,' "B5<C-89:' -7' 5A&=' -' >5' 9&B' -7' 4&?!f 1,+!f 13N' 8?S ?<9' -7' 4&:' =5 59:' 95:;5A &">' ">=&:4' <77<&9:!f 1N,$M+*' &:' "5>-&<&-":' 7-9' ?<' &">' 45' 9&"A5' -7' ;<&'" -' (<9' 8&&9 !f M.+$M.M' &:' B5< 4'<"B'A4<9<A 59!f M.M!f M.2

%8&9-><!f 9A4J&:4-;' -7' -=5B-!f 4&:' -;&"&-'" -7' %855'" =&I<J5 4!f L&' FF' &9' -4'" ?& 4&:' W8<995=' 6& 4' 4&?!f 2M

B5' %8&::5 !f (!f L&' *FF' %8 " 95=!f &&&' F.F!f 1.3

!' >< 459&">' <!f &L' M*F' 45' <: =5!f MFF' (*$

<BA=&775!f &9' >95?-"B!f &L' M.N' L' F*M!f F*2' <BA=&775!f &9' 5"9 !f &?;9&:-"5B' 7-9' ;5A8=<S &-"!f C&&&' MM' &:' =5 59' -' 8::5L!f &L'2FM <BA=&775!f &9' 8?;495 !f C&' *,1' <BA=&775!f -J59 !f <9=' -7' 8::5L!f &&' *,+' ' C&' *3!f **2!f *N.!f .+M!f .*+!f ..2" C&&' .NF!f F1+' &:' 5L;5B&-":' <><&":' 45' A-:'&'" P=:59'<"B' 45' :=5:!f C&&&' *+' &:' :D&9?&:4' 6& 4' 45' 9&:4' <' 9?<>4!f ..' &:' 9--;:' 5" 9<;;5B' J' @ 5&=!f .F!f .1' &:';9-;-:!&=' -' ?89B59' @ 5&=!f .3' "C<B5:' 9-"5!f .N!f F,!f 1.!f 1F!f 11!12!f 1,' &:' :&: 59' B5?<"B5B' &'" ?<99&<>5' J' @ 5&=!f 2.' -A<=5B!f F,' &:' &" 9&>85:' <><&":' &B"5 !f FN2 W \' &:' ?&:-&-'" -' #&5""<!f &L' *,M!f *,3!f *33!f *3N' ' A-?2?&:-&-"59' 7-9' &"C5:&><&">' 45' <9"=5 ' ?89B59!f .,,' &:' 95;-9' -7' 45' ;9-A55B&">:' -' 5A&=!f .N1!f 1,+' 95S :&B5"' -7' 45' -8"A&=' <' -9D!f M+N!f M*2!f 2.N!f M2+' L' F++' "C<B5:' A-=<"B!f 1*' <99&5:' 45' -9B59!f 1F!f M3' &:' A-995S :;-"B5"A5' 6& 4' (<&=<"B!f N*' &:' B&:$ <;;9;C<=' -7' 45' %855"@:' 95<?5"' -7' 45' 5 459=<"B:!f L&' *.2!*F1!*FM' <C-89<J=5' -' 45' =5"^-'" ?<99&<>5!f *1N!f *M*!f *MN!f 1+F!f 12.!f 1M1!f 1M,'

<D-9:!f <AA-8"' -7' 45!f C&&&' ,

<=5&>4!f #<=59!f 7<459' -7' &9' <=59!f C&' *1N

<=5&>4!f <=59!f 6& 4' 45' ">=&:4'<' &">=5!f L&' .FM

<?J-8&=5!f (!f &'" B&"J89>4!f C&&&' .F3' "?;-"!f 4-?<:!f C&' *22'

<"B<=!f -4"!f <?J9&B>5':8B5"!f :8&A&B5'-7!f &&' 33

B-' <"B<"!f (!f <99&C5:' &'" -"B-'" -' ?<D5' 59?:'7-9' =&5' 95"A4'&'" A-=<"B!f C&&&' .FN' &:' &": 98A &-":' 79-?' 9<"A&:' !' .FN!f .1+

<"B-=;4!f --="5' B6<9B!f C&&&' 1**' -?S ?<"B:' &'" 95=<"B!f 1+.' ' 599 !f 1+,!f 1**!f &=5B!f 1*.

<"B-=;4!f 4-?<:!f C&&' *++' AA-?;<"&5:' 99<'" -' A-=<"B!f *F3' 5" ' J' 99<'" -' -97-=D!f .+,' &:' -;&"&-'" -7' 45' A-:!f .+3' R 5A&=9:' A4<9<A 59' -7' 4&?!f .M.!f .,*!f .,2' &:' A4<9<A 59' -7' 45' %855'" -7' A-:!f 32*' &:' <AA-8" ' -7' 45' A-A4' <4-=&A' A=59> !f F,N (*$ ' 1*3!f MF.!f 2FN' &:' =5 59' -' =&I<J5 4' -'" 45' ?<99&<>5' -7' 45' %855'" -7' A-:!f C&&&!f ,F!f ,3' <?5B'<' A-??&:S :&-"59' <!' 45' A-"7595"A5' -7' 596&AD!f *+2' &:' &": 98A &-":!f *+2!f &:' A-"C-9:<&-'" 6& 4' (<&=<"B!f *+3' 5&&-":' 7-9' 4&:' 95A<=!f *.N!f *11' (*$ ' *M2!f *,1!f *,3!f *3*' L;-:8=<&-":' 6& 4' 45' %855'" -7' A-:!f *3*!*3.' =&I<J5 4&:' &": 98A &-":' -' 4&?!f ..-H!f ..*' L;-P5B' 79-?' A-=<"B!f .11'' &L' 23N' '!..!1*' 5" '<><&'" -' 45' A-A4' =-9B:!f ,.!f F1M' ' 45' A-"7595"A5'<' B&"S J89>4' <:=5!f F12' &:' B<">59!f F1N' 5$' A<=5B!f F1N' &:';-;&"&-'" -7' 95"A4'<77<&9:!f L&' 21' 5" ' -' <?5:# !f .3M' &:' &"S 59C&56' 6& 4' 45' &">?!f .3,' 4-'<!f .N1' =&5:' -' 5&6&AD' .N1

<4=&"!f ::5' -7!f L&' *31' (89B59'-7' 6-?5'" <"B' A4&=B95'" -'" =&5!f *3M

5<B&">!f JJ-' -7!f &&&' 1F*' 5A<=B5!f B?&9<=!f L&&' 2++!f M**' &:' B5< 4!f 2*,

5A-"A&=&<&-"!f A' -7!f C&' .NN

55B!f =B59?<"!f &C' FNF'

55B!f A<;<&'" -7' (<9' 8<9 @:' >8<9B!f &L' M*F

57-9?<&-' 5>8?!f J5>8'" <"B' B9-;;5B!f C' 11M

5>5"A' &==!f C&' F+3

5"<9B!f &?-"!f 4<9=5:'# @:'?&"&:59' -' ">S =<"B!f 4&:'A4<9<A 59!f '13,!f 133' ==:'<BC&A5' -' (<9 !f C&' F!f 1F' 59' A-"7&B5"A5'&"'4&?!f 13!f M*!f 2.!f 2.!f 2F!N1!f **F!f **N!f *2+!f *,*!f *,2!f *3*!f *3F!f *NF!f *N3!f .*.!f ..*!f .22!f .2N!f .2.!f .2F!f F.2!f F.N!f FM1'

5"'&"' 45' *2 4' A5" 89 !f &' .2

B5' 5W85:A5":!f -'" -8&:!f 9<"B' -?2?<"S B59'-7' <:&=5!f :8AA55B:' =C<'&"' 45 5=&59$' =<&&B:!f L&' *3!f !f 1*!f &:' B5< 4!f 1F' 59A:!f <B !f C&&&' !f ' (*$ ' FM,

B5 5 I -8" 4&: &" 59C&56 6& 4 %855"
=&I<J5 4! L& *+1! *+M
5C5 9 ! && 9 .3
5 "-=B:! < 459! && F,2 K
45&?:! < 4-=&A 9578>55:< ! L& *2N
4&"->9<C5! 45! C .2* 5:&5>5:< <C95!
C&& M**! 2*1
&AA<9 -"! <&9B -7! &L .*.
&A4! &9 &A4<9B! :-=&A& -9$>5"59<=! && FN,
&&& M+.' &C' M+1' C' , 5A-?5: -9B
4<"A5==-9! .F+! F2+' C& .N1
&A4! < 459! && *, ,
&A4! -9B! &"" 95=<"B! L MM,
&A4<9B:-"! &9 #&=&<"&! &&& 11M
&A4?-"B! %855"" =&I<J5 4 < ! C&&& 31! 3,
&A4?-"B! 5"9 & I9- ! 8D5 -7 x&==5S
>& &?< 5 :-"" -7 5"9 # ! & FN2
&:7<&9 ;9-?&:5!<"B 79&5"B:4&,' 6& 4 -9B
8995 ! FN, < ?5B B5;8 -7 95=<"B!$&&
.33 "" "5 -=5 "@:' 5L5A8 &-"! 2.2
&:B5< 4! &&& 1FN
&A4?-"B! 8A45::' -7! 459 5C&B5"A5 <><&": '
459 J9- 459! -9B 8995 ! &C 2*1! M*,
&A- ! < 459! 4&:' :59?-"! && FFF
&B=5 ! &A4-=<:! &:4-;' -7 -A45: 59! ?<B5
&:4-;' -7 -"B-"! C .2,! .23! .N*' #&:& :'
<9B&"59! F*. :' -"5 -7 4&:' 8B>5:! F*,!
FF*' &:' :59?-"" -"" 45 B&: 95::' -7 45
;5-;=5! FNM "A-89<>5:' 45 :;-=&< &-"" -7
' <8=@:! 1MN 95<A45:'<><&": ' (<9 ! C&'
.2 995: 5B <"B :5" ' -' 45 -659! F3'
-' L7-9B! *N2! . . . ' &:' 9&<=! F3*' &:'
69& &">:! F3+' &:' :87759&">:' <"B B5< 4!
F33
&B-=7&! -J59 ! 45 -;5@:' <>5" ! &L 1*2!
1NM ' 33! *2M 5" J 45 <4-=&A:' -'
4&=&;! *MM! *M,! *,F! .+.! .++! .1N! .M+'
&58=L! B5! &C' *,*! .,F! F1+'
&II&-! <C&B! C&&& **,! *.,! *.N! *M,' &:'
&"7=85"A5 -C59 45 %855"! . .2! .F3' 5<=-8: '
<"B B&:=&D5 -7 4&?! .1*' =-' -' B5: 9-'
4&?! .1.! .1F! (89B595B! .M*'
-J:<9 ! ? ! ?<99&5B -' -9B -J59 8BS
=5 ! C' .N+" C&' *,' C&& 3M 59 &=="5::!
3M' "B B5< 4! .,2 (*$.,N! .3*'
<8:5 -7 4&:! .3*' 8:;&A&-":' -7 7-8'
;=< ! .3,$.3N 59 78"59<=! .3N
-A45==5! &L' F+,! 1.F
-A45: 59! &9 -J59 ! :5" ' -' 45 =55 ! C
FM3" C&' *NF! .M2! F*N
-A47-9 ! -9B! "" "5 -=5 @:' J9- 459! :5" '
-' 45 -659! A-"B5?"5B! && 133 &:'
A-"75::&-"" <"B B-<=&! 2.F
-A47-9 ! <B ! &&& 1N+' -?795 ! &C
*.N 59 5L5A8 &-"! *1*'
-A4;-! #' .21'
->59:! &9 B6<9B! &C' M*F'
->59:! -4"! A<"-"" -7 <8=@:! 4&:' A4<S
9<A 59! C&' F*1' &<' 9&<=! F*2' 5>9<B5B!
F*2' 89" ! F*3
-D5J ! <' :5A95' < 4-=&A' <>5" ' <' -= 9--B!
C&&& .,N &:' 95A5;&-"" J ' 45 %855"" -7
A- :! .3+' 995: 5B! .3F
-?<"-! 8&:! C&&' 2FM' "" 45 : < 5 -7 45
">=&:4' < 4-=&A:! C&&& ' ,*
-?5! 95A-"A&=&< &-"" 6& 4! C&' .3,! .N*'
-;59! (<9><95 ! (-95@:' B<8>4 59! && FNM!
1++
-:5! 45 4& 5! &' **1' 95 5"B59' A<=5B'
45 4& 5 -:5! &C' *+N
-:5!<9:' -7 45! 45&9 5775A :! &' **+'
-:5 ! D55;59 -7 45 <9 4<?J59! C&' 11*!

-:4-&?! (<9 &"' C-"! &C' .,3'
-::! &:4-;' -7 4 5:=&5! -4"'
-::! <9=' -7' 4 <9"=A '
-::! <9J5" ! &:4-;' -7! L&' .+*'
-45:! (<: 59 -7! &C' 1,2 0
-59B<?! ;5-;=5 -7! ?<::<A95B! L' F,1'
-85"! C&& 1*N! 1.M! 1F1! 1FM
-8>4! -4"! &C' .**'
-8:5! &A4<9B! J-&=5B -' B5< 4! &' F+N
-6D5:! B6<9B! && F*+'
895?-"B-' <D5"' J 45 9&"A5 -7 9<">5!
FNF
8::5=! &9 -4"! &&&' ***!**F! *,2 95< 5B'
7&9:' -9B 8::5=! .2,! FM+! 1F2' &C' 31+!
1.+! 1..'' C' *1,! *,*! *,M! *32! *N.! *N M!
.+3! .FN' (<B5 <9=' -7 5B7-9B! .2*!
.2.! F** P" 6&=="' -' :&>"' 45 5 59:'
<5" ! 2+.! 2+N C&' .1! *F,! .+F! .*1'
8::5=! 9<"A&:! :5A-"B <9=! &"' =&I<J5 4@:'
789<HA-8"A&=F C&&' *3' "5 -7' <A-?7& 55 -'
A-":8:' 6& 4 45 %855"! .2 D5 A4 -7'
4&?! 1M! *1M! *12! .NN! F*2! F*,! F.*!
1F+' <?5B' <A-?7&::&-"597-9 45 A-"S
7595"A5 -"" 45 :8AA5::&-"! C&&& '*+2! *3*!
*NM! .+N! ... ' 45 J<;&:?' -7 <?5:!
F13! F1N' &L' *1M! *12! *23! 1,+! MF*
8::5=="! &9 9<"A&:! :-"" -7 45 <J-C5! C' *.1'
8::5=:! 45! &C' 1.F
8 4C5"! -9B 9-C-:' -7 59 4! &C' F+M" C&&'
*+N" C&&& .1. -&":' 45 7-=-659:' -7
"-L! C&&' **1' ' "B956@:! **M'
&>":' <"' <BB95::' -' %855"" =&I<J5 4! *..!
' 45 A-"7595"A5' <' 596&AD! *N,' "S
7-9?5B' -7 45 A-"B8A' -7 (<9' 8<9 ! C&&&'
.1.' ' 45 ?89B59' -7 &II&-! .M*! &:'
<AA-8"' -7 &! .2,' &:' 7=&>4 ! .2,' "B'
B5< 4! .,3
8 4C5"! -9B x:55%-69=5 ! :-"" -7 45 <J-C5!
:5" ' -' 45 %855"" <' -A4=5C5"! &L' *FN!
1X
8 4C5"! 9<&B -7! 2+
8 =<"B! <9=' -7 4 (<"" 59:'
8 =<"B! <B ! &&& 1N+'
?5""" ! J< =5 -7! L&' *.2'
:J ! < 459! && *,3

! &9 5"& ! &&&! *2N
<AD"5==! -J59 ! &&& F3*

<ADC&= ;f &9 =-&AJ<9B!f C&&& '.31'
"ADC&==5!' &9 &-&"<:f -9B "5D489: f :5" '
-' <9&:f ' *F f * 3' - &A5 -7!f *FM 6$*$*'
-"C5 :' (&8 @:' :A8 -"A5 -' - 45&&&&;H< f
L&& F+3!f F+N' 5" ' -' -=<"B' &"' 5&A5:S
59@:' ;=<A5!f F,+!f F, ,f F,N
<B=59!f &9 ="=:;4!f &&& M.,' ' &C' M*!f M1!f .+.f
.+F!..*N!f..Ff..,f.FM!f.F+!.FN".1Ff.1,'H
#.++!f.F1" $A&&! *FM' FN!f *M+!f *M*!f .*.H
.F*!f .F.f .1+f 13." C&&&' F+2' ' A-?S
?&::&-"59 7-9 &"C5: &>< &">' =&-' <9"=5 '
?&&"=59!f RL' .,,!f M..' 995: :' 45' 8D5' E
-7 -97-=D!f 9' .N*' <:' A4<9>5' -7 45'
%855"" -7 A- :!f FFM ' L&' 2MM!f 22M ' L&&" F.!f
MM!f N.!f NM
<&=-9:!f ">=&$:4!f J57-95' 45':&L 55" 4'A5" 89 !f
C&&&'1.F' ">=&:4' :<&=-9:!<"B' 45' &L&"&:4'
"W&&&:& &-"!f 1FN' -?;=<&" -7 4-?<:'
&A4-==:!f 11+' 5 & &-"' -7 -9- 4 ' 55=5 !f
11*' 89"'&"' &?&"!f 11Ff 111" '8:<>5'
-7 ">=&:4' ;9&:-"59:' &"' ;<&"!f 112" &L'!E
1*+' 45&9 6<>5:' ;59 B<' &"' 233!f L&&' '
1F+
' =4<"@:' JJ5 !f C&:& 5B' J ' <9B&"<=(-9S
-"!f &' 1FF
' =B5>-"B< L&' FN!f 1*!f 11!f M.!f 1*+!f 2*,!f
+F.' 8995"B59:' " 659;!f L&&' *F,'
' "B9`!f (<9:4<=!f C!&FF3'" C&&' F.*!f F3*!f
1.M' ' =&5' J< =5'-7 958L!f 11*' ==-B!f
13.' E k 0 E
' <9 4-=-?56!f ?<::<A95'-7!f LE'1+F' <8:5:'
-7'&!f 1+N!f 1*+!f 1*F'
' =<&9:!f =&-f &C'1.F
' -?&">-!f A<; 895B' J ' 9<D5!f L&4' 11N
B-' <&" 5' -&L!f <' ;9&5: !f <' 45' 95"A4' A289 !f
' FN3
' 5=5"@:!f 95"A4' 7=55' B9&C5"'/-77!f &C' 1F*'
489A4'-7!f C&&' 12,
R 5<'" B5' PP-<f "<C<=' J< =5'< !f &L' F+.'
' -4":f 45!f &&&' *2+' @
' -4"!f -7' <:&8>&4 ' <8=5 !' -9B'
' -=&"& &9 =&C59!f A&9" AB' -9B' ' -44'
-7 =5 :-5!f 9578:<:' 45' >8<9B&<":4&;'k-7'
(<9 ' 8<9 !f L&&' N2
' -C-9"@:!f 45' 7&:459?5"@:' J<""59 -7!f &&&
F.*' E
!' `>59!f $ &9 " 4-" !$ &&' 2+,'" E&&& .M+'
&C!E,N! 3F' (<B5'B5;8 ' -7 95=<"B!' *++'
#.1,!f 1+N$1*+!f 1*.!f 1..!f 1.2' C&' *+1'
' ->59$!f &9 -4"!f C' '
$ 5>-9!f &9 &A4-=<:!f 4&:' :;55A4!f L&' FF1'
' ->59!f &9E <94<?!f :-"' -7 &9 4 4Z" !f
9' 3+' 5A-?7?5"B5B !<:' 95:&B5"' -7
E(8":59!f C&&&' FNF!f 1*.!f &:'=<8B:'&"' 95S
=<"B!' 1N.'' L&' .*2' "' 45' 5<-' Z7
45'A-8" 9!f .1N' 5>-&<5:'6& 4' 45' <9=
-7 5:?-"B!f .M.!f .MFK@.M3!f = 9&"-"B@:'
B5:A9&;&-"' -7 4&?!f .2* (*$'
' --!f -=-"5=!f <' -99 K C&&&'1*1!f 4<:5:'
@ 5&=!E1*M! & @ E 0
' --!f &9 -4"!f &&!f F+3' @ @
T' # '

' --!f &9 &=-&<?!f &&' F.F" C&' *£3N
' (<& :' 489A4!f L7-9B!f C' 1*N
' (<9 E:' =:!f C'*,' < =5'-7!f *+*$*NF'
' ="9' C59R$E:!f :&L' "-6' J&:4-;:' A-":5S
A9<5B'<!f C&' *N3!f F*1
' (&A=8=5=@:' &&D5"' J' -"' " -"&-!f L&' 1N2
5 <D5"!f 1N3 E
' <8=@:' ;9-7<"5B!f C' .,' =<9 -7!f 95$
-&-CAB!f NF' 9&;;5B!f 1MN' E(<:' 95: -95B'
<!f C&' @K' 8&$"5B' J' =&>4 "&">!f C&&' F11!f
F$*2 E !
' <8=E:' A4--=!f ;-97-9?-455' J' 45' 4- :'
-7!f <' 95-"?£A4!f &',M
' 5 59@:!f ?&B"&>4' ?<::' <!f &&&' *3,'
£%85" &"!f J< =5'-7!f C&' 13F'
' <C&-89@:!f JJ-' -7!f ;9-;-:5B' ":' ;<;<=Q
=5><5' -' %855"" =&I<J5 4!f C&&' .*1F!.1M!f
.2M k
<=&:J89 !f -8" 5::'-7' 4 3' -=5E
<=&:J89 !f &9 -4"!f &&' F+,'
<=&:4?$!f 4-?<:!f <995: 5B!f L&&' .M-' 9&5B'
<"B' 5L5A8 5B!E.2M$.,+' E E
"=C&< &!f #.N2 E K
<?7-9B' -89 5"<!f =& 89>' 9578:5B' &"!f C'
*,+' < =5'-7!f *NM
<&";:-&&& 9!f &:4-;'-7' 4&A=&A: 59!f &&&' 1M+!f
13*' &L' 1,+' E E E
8"' 8<"' B-' && -4!f L&' F3.$F31'
B5' <"' -:£5;4-f "' 9&: &<"!f &"' ?-96&AD!f
$FF,E /
<"A &&&&9!f ;9&C&=5>5' -7!f $& i' 132' <6:'-7!f
O&C&=1,' ' E !
<@4B<9:!f <895"A5!f 9&<=' -7!f C&E F*,Q (<9S
95B!f F.F H
<"B59:!f 9' &A4-=<:!f L' F,+!f 1.,"L&' .$1!f
23!f *23!f .+F' E &:' 6-9D'-"' Q 45' ">=&:4'
! A4&:?!£E.+1!f $.+M' <&=:'79-?' ;<&"!f <"B'
=<"B:'<' &">=5!£.+,!f .+3!f .*1!f ...!f ..2!f
..,' $ &:' B&:<;;-&" ?5" !f .F.!f .F,' &&:'
B5<4!f .F,$ E E E
<"B59:!f &"&<"!f C&' **'
<"B&">7-=B!f JJ5' -7!f !C' F+M
<"B6&A4!E&&&' .2,' E 0 k $ E
<"B :!f -9BH &&'£M+2'E@ Q
<"B :!f E B6&"' H£&A-$ 4 "A-=-9£ -7' <& &$
J9&B>5!£C&'.,!f F2' 995: 5B!f F,' 5" '-'
45' -6`9!£1,Q "' 5L&=5'<' 9<"D7-9"*+F'
&:4-;'-7' -"B-"!f L' 1*F"' 9A4J&:4-;'
-7 -9D!f L&&' M' 4<9>5'R=><&":'4&?!£M (*!'
<" <' 98!f <' 59A-&9<!f L&' 1H,' 9<D5@:'
A4<=5">5' -' 4&?!f LR&' F,2E Z? "d"B:'
45' 9?<B<!f FN2' &:'B5<4"1+*
<;65=!f "8""5& ;7!$&&' 1FM P
<C<>5!£ =&a£A-":;&9<-9!f <995: aB!f L&&' .H1!f
.M2' -"75::5:!f .MM' &:' 9&<=!f .2M'
"B' 5L5A8&-"!f .,+' @ E E
<C-!f 4&=&J59!f 9&45-'-7' 4' 4&=&459' E
<L-"!f -4"' 95B59&AD!f =-J -9'-7!f 4$'.2Nj'
.,F£0 k E E E k E "' /!
V A45-6& If B<?!f <?J<::<=-&7@ &4 #&9 5?$
k J59>!f &&&& '*22£!* 2 , E E ' E E /' k

( ) V

A459 I& 9<:9<-:! C ' *MN
A4- 7"5! ? ;59&8=' <?J<::<7=-9 -' ">=<"B! #' 1N*! 1N2! 2*.! 2*F! 2*1" C& ' . "È 4-' &" 5"B5B! B5< 4:' -7 <9B&"59! 45 8D5 -7 -97-=D! \A " *+
A4-=<9<@ A ' <J-8 ' L7-9B' <"B <?J9&B>5! &' 31! 32
A4-65"! ;&=<>5B! L&' 22
A46->5"45?! -8" ! :5" ' -' ">=<"B' J ' =C<! ' *1,! $*13' $ <&=:! *13 ' 5?<&":' <:' A-?? &::&-"59 7-9 ;<"&:4 <7 "&9:! F,+' 5" '79-?' 45 5 459=<"B:' -' 8>=8"B'7-9 ?-"5 " L&' 2N
A&= ' &:=5:! ;89A4<:5B J ' -9B 5 ?-89! ' *F,
A-"5 :<AD5B' <"B J89" ' J ' 45 9- 5: <" :! C&& ' **2 ' 45 A-"5$: -"5! C&&& ' *.' (*$ '
A-9 ! &:4-;' -7 -A45: 59! C ' FM2" C& ' 2F' C&& ' *,M
A- ! &:4-;' -7 45: 59! C& ' 122 ' =&I<S J5 4@:' 7&9: ' <9=&<?5" ! C&& ' 1. ' &:' :;55A4' -"' 45 8;95?<A ' &==! 22
A- =<"B! :D5 A4 -7! &C ' *$2F! . ,! =, 3! *32! *N+! .FF ' -9B 59 7-9B &"C<B5:' & ! F.. ' <5 -7! 12N" C ' .N ' "C<B5B' J ' -?59:5 ! 11! .2,! F+2" C& ' 132" & ' FNF" C&& ' N3 ' 5"B5"A&5:' -6<9B:' <' 8"&-"' J5 655"' ">=<"B' <"B' A- =<"B! *+*' 45 57-9?S <&-"' &"' A- =<"B! *+F ' 3\1' 5A&=@:' <9S >8?5" :' 7-9' <"B' <><&":' &" 597595"A5' &"! *F.! *F,! *F3! *M.! *MF ' 9-;-:<= 7-9 È 45 8"&-"' -7 45 A9-6":-7 ">=<"B' <"B' A- =<"B! *2N! *32!*N3!.*.!.*F ' -::&J=5 95:8=' -7 45=<"B&">' -7 <;<"&:4 7-9A5 &"' A- =<"B! .*N! F.F$ (&::&-"' -7 -<&=5:' -' A- =<"B! F.1 A- &:4 :5 =5?5" :' &"' 95=<"B! C&&& ' *+' <5 -7 ;<9 &5:' &"' A- S =<"B' &"' *M2M! *23 ' 5:-=8&-"' -7 45 ">=&:4 -8"A&= "- ' -' &" 597595' &"' A- S =<"B! .+1! .+M -=& &A<= &?;-9 <"A5 -7 <?=5 @:' ?89B59! &L ' F! *2 ' ?;9&:-"S ?5" ' -7 45 %855"! NN ! <5 -7 45 D&">S B-?' &"' *M,*!' .,F! .,1 4955 ;<9 &5:! 95"A4! ;<"&:4! <"B' ">=&:4! .3+! 11*' <5 -7 45 D&">B-?' &"' *2,3! L&' **F' L&& ' **+' 5C-=8&-"' &"! !**+!' ==!' 4 ' <?5:' # ! (<9 ' 8<9 '
A- ! -4"! 7<"<& R& ' F*2'
A- ! (&9 <=59! -7 8AA=58>4! &L ' M3N' 8"&:45B! L ' 1F' ' 45 :89;9&:5'-7 &9S =&">! .3F ' (<B5';9&:-"59! .31'
A9-;-! -9B!È<' 45 >< 459&">' <' -?795 ! &&&& *M+ ' & 4 45 ">=&:4 <9? '&"' A- S =<"B! C&&! .*.' $ -C59"-9! -7 <9=&:=5! &L ' *2,' &C5:' ?-"5 ' -' -9B' 599&5:! *2, È -995:;-"B:' 6& 4 599&5:! *23 ' 5" ' -' <D5' A4<9>5' -7 45 %855"' -7 A- :! HFN! .M*! MFM " L ' 1.! 11
A8B<?-95! (9! &C ' *2*
5J<: &<"! &">' -7 -9 8><=! 7<==:' < ' =A<I<9" L&! *1+! *1*
5J<: &<"! (<& ' 8<9@:' :59C<"! C&&& ' F2,R &L ' **2! **,
5<9A459:! 9<B5! <"B 45&9B8 &5:! &' MF ' =&5&9 79<8B:! 2+
55=5 ! -9- 4È!4-9;5&&-"! C&&& ' 11*
B-' 5>89! (! 4&:' ?&::&-"' -' ">=<"B! L&' 2+F' 45 B&<?-"B' :-9 ! 2+M' 5<C5:' ">=<"B! 2+M' 5 &8@:! L&& ' 1! 33
5?;=5! -9B! R-&":' 45 5>5" ' <' <">:&B5! &L ' ... ' #& 4 4&?' 645"' ?89B595B! 23+' #59:5:' < 9%J8 5B' -' 4&?! M31
5?<9;-"! -C59"-9 -7 -8=->"5! C& ' 1M3! 2*N
- -"! -9B! C&& ' F,+" &L ' *+' AA-?;<"&5:' 45 %855"' -" 459 5:A<;5 79-?' -54=5C5"! .*. ' 98::5=:' 6& 4 =C<& L ' *M*! .,2' 5>-&<&-":! F1+' 5 89":' -' A-=<"B! F11 ' &:A-C59 ' -7 4&:' ;<;59:' <"B' A&;459:! F1M' 5" ' -' 8&:5! L&' 2F,! 21*
B5 `C9-! 95"A4' <?J<::<B-9&"' -"B-"" 9&& *N2' -"C59:<&-":' $6& 4%855"' =&I<J5 4! *N2! .+,! .*3! ...
5L 8:' # ! -;5! L&& ' 3M! *2,' *23! F2+! 11+! M.. ' 5:A9&;&-"' -7 J ' -8" ' =&C<95I! 2.F$M.,
5 ?-$89! <"5! 7&9:' <=8:&-"' -! Y È -89 ! && 13M' 59 ?<99&<>5! 2F*' 59 B5<4! .2F! .2&7$?5" ! &&& ' .2*' 59 B5<4! .2F! .2&7$
5 ?-89! &9 B6<"=! -=B5:' J9-459 -7 45 <J-C5! ?<B5 <9=-7 59 7-9B! &&& 'X;@' 11*" &C ' **+' "C<B5:' A-=<"B! F*2! F.1HF.2! F,*' -5:' -' 98::5=:! F,,! 331! F3M! FN2' "' A-=<"B! 1+*! 1.+! 1F2! 12F! M+N$M*2! 2F*' 5A5&C5:' 5"9@:' =<:' &": 98A&-":! C ' .! F@ :' A4-:5" 9-5A-9! 2' (<B5 8D5-7 D"59:5! *+! KX ' F.! FF! F,! F3! 1.' "C<B5:' A-S =<"B' <><&"! 1,! 2+' &"D&5' =58>4! M1! M2! 2.! ,F' <=C&"È<BC&:5:' 4&?! NN' 8&=B:' -?59:5' -8:5! *+,' -=B:' <-89 ' -7 5W85:' &"' 4&:' 4-8:5! *.F! $*.,' &:' 5L 9<C<><"A5! *M,$*23' 5?;' 9<&:5' 59?<"' 9--;:È 7-9' <4&9B' &"C<:&-"' -7 A-=<"B! *23! *2+' ::85:' <4595:' A-?? &::&-"! *22' &: 89J5B' J ' 95=&>&-8:' 9&:&">:! *,2' 5<9:' 7-9' -"B-"! *3F' 59S :5A8 5:' -""59! *31' " 597595"A5' -7 45 -8"A&= 6& 4' 4&?! ..2! ..,! .F+! .F*! .F1' <99&5:' 45 &">' -' &"B:-9! .FM! .F,' 8J:&8 5:' 4&:' È69& :59C<"' :' 7-9' 45 5-S ?5"' -7 45 8<9B! .1F' ::895B' J ' 45 -8"A&= 4<' 4&:' =&75' &:' :<75! .12' 5" ' -' 4-' -659! .1,' 5;-:5B' 79-?' È 45 ;9-5A-9<5! .2+' "B' @95=5<:5B! R .2+' -9?<= ' ;<9B-"5B! .N+' &:' B<8>4 59' <B ' ""5 5 ?-89! ?<99&5:' -9B' ?S J9-:5 8B=5 ! .N+! F**! F*2! FM, È &:' ;<9 ! F2N' &:' ;=<":! F,*' 5 9< 5B' 4C' <=?59! F,.' 995:5B' <' 45 -8"A&7 -<9B! F,2' AA8:5B' -7 95<:-"' <"B' 75=-" ! F,N! F3+' AW8& 5B' -7 45 7&9:! È F3*

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-8"B >8&= -7 75=-" ! F3. ? ;< 4 -7 45 ;& R;=-!F3F LAA&& 8B!F3F$F3N 5 "&-8&!f -9B B6<9B! :-" -7 =&-&&4-CA! C . FN 5A-?5: <9= -7 59 7-9B! C&& $ (<99&5: ?= < =&59&"-9- ! 8"B A-?S ?& 5B -45 -659! F,*! F,.! 13F L *33 5 ?-89! &9 4-?<:! J9- 459 -7 =s-9-$ -A -9! &&& . 1 &9 *,,! FNF -9B 5 S ?-89 -7 8B=5 5! &>4 B?&9<= -7 ">S =<"B! * # &:&5: -? <99 =&<=&8 =&! !)+ ! = 2 3! > 33 2 5$ <99! *.N " 9&>85: <><&": 4-9- 5A -9! *FF! *F, 5" -=&- -6-9! *1,$*1N S <& 5B! *M.! * F &: B5< 4! *M 7-9I<! = 8D- -7 (&=<"! &121 &&& + = <"5:-"! &9 59<=B! &&. ,1 4<"DA 5:! <AA-8" -7 45! C&&& 2 =&8"D=&"! :D&9?&:4 < ! &C 1F* =?9&"> -"! &9 &=&<?! A-?; 9-=59 -7 45 ?&" <' 9&: -=! C *+N &: 79<8B:! **+! *F :! *1N <9B-"5B! =8 4<L -"! &:4-; -7 <=&:J89 ! & .F3 && N*! 1,+ &&& 1+, ! &C Z Z 4577&5=B! -9B! D&=5B! C .+,' & 45=- ! &9 &=&<?! &&' M+2 ! &-;;5 ! :=- -7! &C! FN1 4596&"! 4&: &B<= <"B 5L5A8 &-"! L&' FMF! FM3 459=- ! &9 ! :5" -= 4- %855"" 6& =& 5L;=<S "< &-"!L&& * , F 4&=--=<>=&! ?<::<A9-< ! L M**' 4-954<?! <A &-"" J5 655"" 45 ">=&:4 <"B 95"A4 - & C 1FM! 1F2 4956:J89 ! <9= -7 4 <=J- 4956:J89 ! -8" 5::-7! L& , F L&& .N! F+ 49&"5:! &&& .NN 7 B6<9B 45 -"75::-9! ;<9 ; 95:5?B! F++ 7 4-?<: d 5AD5 B5: 9- 5B! F+*! F+F &B"5 ! &9 5"9 !C& F,"C&& F+N 95:5" < <"" &" 59C&56 J5 655"" 5A&= <"B B5 %8<B9<! FF1! FFN! FNM! 1*2 &:<AA-8" -7 4-: <5 -7 95=<"B! C&&& M2! M, 5" 4595 <: B5;8 ! F3F! FN*! FNF! FN2 "S 5775A 8<== B5?<"B:! 4&: 9AA<P! FN, ! FN3 "C<B5:! P=: 59! 1+M &:<8AA5::5:! 1+,$ 1+N 5A&=:! <BC&A5 -4&?! 1*+ ><&"" B5S ?<"B:! 4&: 95A<=! 1** 5"B:! 4- <9= -7 5:?-"B -"B-"! L 13, C5998":! 45 :-8 4 <"B! 65: ! M+F! M+1 -:&>":! 4&: -77&A5! 2F+ &:956<9B! MF+! 21. ><&"" J5A-?5:! B5;8 -7 95=<"B! L&* *32 &: ;9->95::! *3, C< &-":! <"B 5L5A8 &-":! *33$*N+ &:95;-9 -"" =&5 : < - -7 45 : <J=&:45B 489A4&"" 95=<"B! *N. 5<C5: 95=<"B! .+. &B"5 ! <B ! C&& *1*! (*$ D C&& *1*! *1.! F*+ &B"5 ! 4&=&;! L& *.M &:=5 59 -"" 45 =5"^-"" ?<C9&&>5! *MM "" 95=<"B! *3+ -C59"-9 -7 =8:4&">! L&& *1F &:B5< 4 < T8 ;45"! *NF! *N1

B5 &=C<! -"" &5>-8I?<"! ;<"&:4 <?S J<::<B-9 -"B-"! C&&, * &:<99&C<= &"" "><"B! 3F &:B5:A9&; &-"" -7 4- ">=&:4 -89 ! 31! *+.! *.2 "" 4- ">S =&:4 :8AA5::&-"! F+N! F.N! 121! 13+! 13. &L *3 &:-;&"&-"" -7 4- ?89B59 -7 <L"&A ! *3! .* &:A-"C59:<&-"" 6& 4 45 <9= -7 (899< ! *FM! *2M! *N+$*NF "" A- A4 <77<&9:! .MN! F.. AA-?;<"&5: 4-%855"" X&9-8>4 45 : 955 : -7 -"B-"! F.1 55<=AB! F.3 &:A=8&9<A 59! F.3 &?&-9! (! 4&:?&::&-"! L& *1M! *1, =&I<S J5 4&:Q ;5 & :&">5!@ *1,! *M* &?:-"! 8 4J59 ! ?<9 95B! C& *M*1 &"A=<&9! =&C59! &C *N* &">=5 -"! 45 ;9&" 59! &"B&A 5B! L& *2* AS W8& 5B! *2. &-"! ?-"<: 59 -7! &"&W8& &5: -7! GG 11M &L 9 &A=5: &== 4 9 &A=5: D-77&"> -"! &9 &=&8?! B5;8 $>-C59"-9 -7 95=<"B! && .33 D5= -"! &9 -4"! C& *3 D599&5:! 4-! C 1*F D&;;59"! =5?&:4 B?&9<=! C *F+* D&9=&">! <&9B -7! &L 13 =<C5 9<B5! 79&A<"! J5>&""&"> -7 45! C&&& 1.3 -6 < 7&9: 95><9B5B! 123 -4"" <6D&:@: =<C&4> C- <>5:! 1,+ =<CA@ ! 5L &"A &-"" -7 :597B-?& &Y ">=<"B! *F ;<"&:4 >5" =5?5"" :-=B < -C59! .1+ =A&B<"! 45 4&: -9&<"! &C FF*! 1*,! 1M1 1+2 =&5C4 &-">4 ?-8" <&":! ?<::<A95:! &"" 4-! L& *N , k =8 :J5:&5>5B J <9?<! L&& F3+$F3F ?<=5<=B&A 5<>&&5! &C 1*,"C .+ C&& FF. ?596&5D! <?5: &I?<"9&A5 <! L& .+3 AA8;&5B J <;<"&:4 <"B <=&<"7-9A5! .F+! .F* ?5 -"! (<9&5 ?":&A&<"" -"" "5 -=- "! :5" -45 -659! &&133 &:A-"75::&-"! 1N+ 59 <AA-8" -7 4&?1N1! 2*M <">5B! 2.. ?&4! &9 -4"! L& 1! 21 5" -(<B9&B! 21 ?&4! 4-?<:! < 5?; : -; -&:-"" 4<"" 5&=! C&&& 1N$M* ?&4! &9 4-?<:! 2 .F+! .F3! .1,! .2+! C& M*M 5C&:&-"" -7 45 9< 59 --D<4&:4-8:5! C&& .2 0 5" <:<?J<::<B-9 -<9&:! 1.F &:;9-;-:=7-9 45 95A-C59 -7 <=<&:! 1,M &:;<9&"" 45"5>-&<&-":7-9! ;5<A5! C&&& 23$+M &:W8<995=6& 4 &9 49-;"-9-"! 22! ++ "" 45;9-S ;-:5B ?<99&">-7 45 &">-7 9<"A5 6& 4 %855"" =&I<J5 4! *.F$*.M 8AA55B:! 5A&=<:! :5A95 <9 -45 %855"! L *N* 995: : 45 8D5 -7 -97-=D! .N 5S A=<95:(<9 8<9@:! A9&?5:-45 95"A4 -8"A&=! F.* &:A8::5:45 =-"&-"" ?<9$

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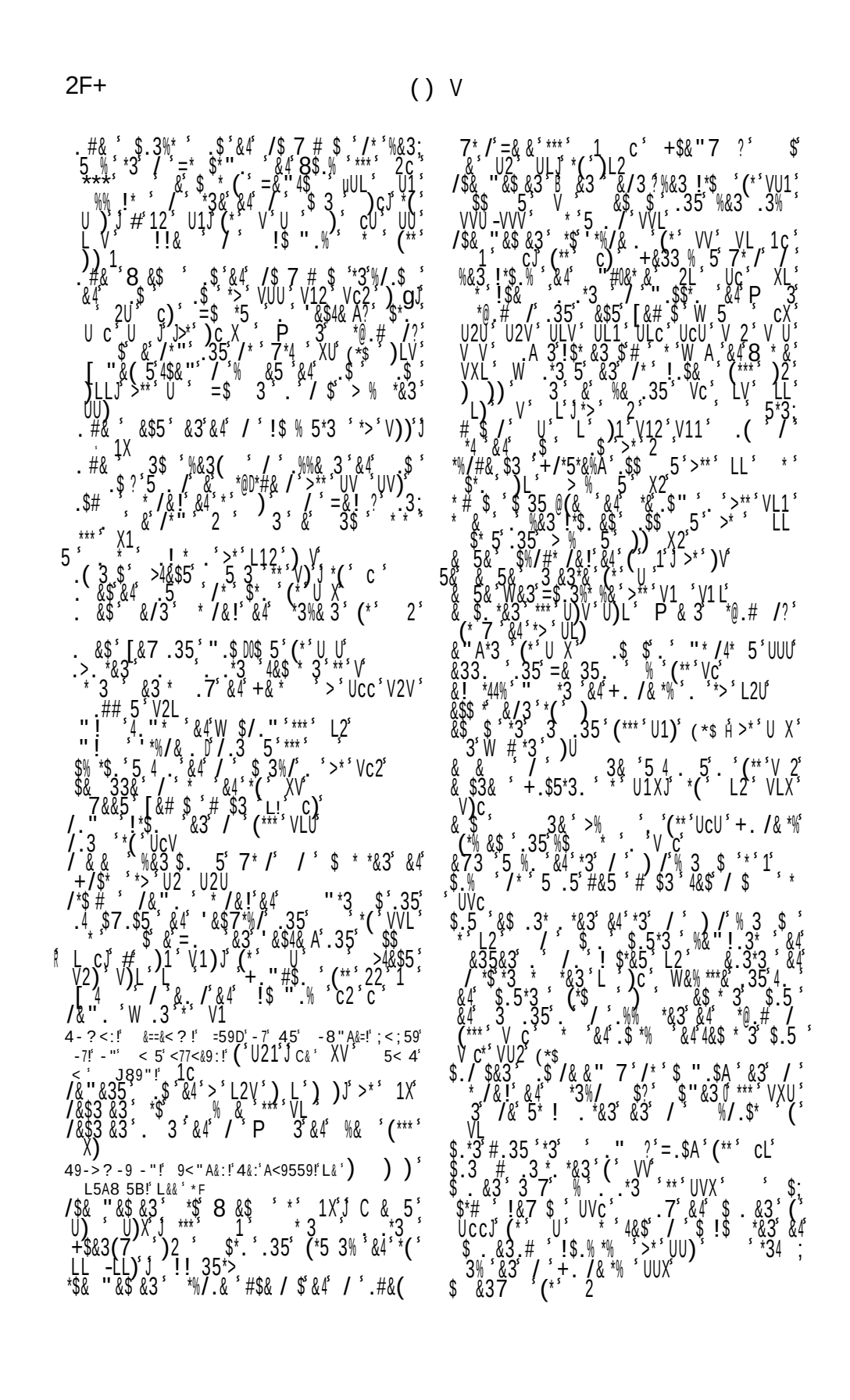
&<>5 k 6&4 4- %855"$?- 459 FM. &: < 5?; 5B :5 =5?5" < "-AD759>8: 21M ?& 4 5"5 ! C& 1+* ?& 47&5=B! ?<::<A95 < ;95C5" 5B! C& 113 -A&<= A4<">5:&" 45 :&L 55" 4 A5" 89 C&& , -=B&59! ;< -7 45 A-??-"!&" 45 *2 4 A5"$ A5"E 89 & F+ .*$ -=6< (-:: B575< -7 45 A- : < &C *NF .++ .+, .F. .12 -?59: (9 4&: ?&::&-" - 9<"A5! L& 1*N &:&" 59C&56 k 6&4 4- &">! 1.+" L&& , , ; ;-&" 5B D55;59 -7 (<9 8<9 L&& ,M -?59:5 <9=-7 -9A5: 59! C& .N1" L *3,! 1FM -?59:5 4 5 ?-89 -?59:5 8A45:: -7! 95A5&C5B J (<9 C& 2+ -?59C&==5! -4" L& 2+N$2** -9A59 "><&:4=<6<: - C&& FFN (*$ -995 <; <&"! 45 ;&9< 5! C&& 1M*! 1M. - -7 <79&&&9! C& F3F! 1+M & 4 9<"?59! 1.3 -8 4<?; -"! <9= -7 4 & I6&==&<?' 9&- 45:=5 -8 46<9D&C& *,F -8 465==! &9 9<"A&:! A-"C59 5B J <?$;&<" 45 5:8& L& FF* -8 465==! &9 &A4<9B!&C M*2 " C& *2+!*MF! *M3! *,.! *NF ;<&"! 5L &"A &-" -7 9- 5: <" &:?&"! &L F+,! F+3 95<A4 J5 655" ;<&" <"B ">=<"B! F,+ 4 .')'H 4&=&; ; ;<"&<9B:! &==$755=&"> J5 655" 45? <"B 45 ">=&:4! C& .M1 45&9 >95< "5:: &" 45 *2 4 A5" 89 C&&& 1.2 45&9 B5A<B5"A5! 1.M! 1.3 ">=&:4 -8 9<>5: <"B ;<"&<9B: <"B =5?&">: A-" 9<: 5B! &L! F*. ;<"&<9B: <"B -$ 459=<"B59: :5&I5B &" ">=<"B! F,+ 4 9?<B< 4&=&; ;5&9! ;9-;-:5B =5<>85< ! L& *F ;-=?<"! &9 -4"! && M+2 ;5":59! B?8"B! W8-5B! && .2." C&&& M2! M, " 95=<"B! L& .F1 ;&"-:<! <9B&"<=! 4&: 95;= - %855" =&I<H J5 4! .1, ;&95:! &5 < ! &C FF*$FF2 <77-9B! (9 B6<9B! W8-5B! & .F <77-9B! &9 B6<9B! :5" - <9&:! L& *+, 5;-9 : 45 <::<::&"<&-" ;=- ! 2*, <77-9Bf -9B! 4&: =5 59 - 5A&= -" 4&: B&:S >9<A5! L&& FM2 (*$ " -8:5&: A<?S ;<&>"! F3N <77-9B! &9 4-?<:! :-" -7 -9B <77-9B "5;456 -7 -=5! C& .1.! .1F 5&I5: A<9$ J-9-! 1,M L5A8 5B! 1,2 <77-9B:! 45! C& *NN <"4-;5! &9 (&A4<5=! C .1,! .2*! F,*! L5A8 5B! FNM <"=5 ! <9=-7 59J ! C& *3 **2! *F,! *NF! ..M" C&& 1+*" &L 1*.! M**" L 32! 3,! .3N! <D5: 45 <9 59 - 5"9 ! L&& ,1! ,2 5" - 4- <5:-7 -=<"B! F32! 1+. &:&":98A &-":! F32 <"=5 ! &9 5-9>5! C& *+. &:><=<" 9 &" 95=<"B! C&&& .1! .+ <"=5 ! &9 4-?<:! 4&: :A45?5:7-9 4- 95S 7-9?-7 4- A& -"A ! C&& 1M, 45 :&=C59 A-&":95A-&"5B! 12N 5AD-"5B -"5-7 4- %855" -7 A- : 79&5"B:! .3 <"=5 ! &9 &=-&<?! 95A<=5B 79-? 95=<"B! L&& *3, &: 95<A459 ! *33 99&C5:< =8:4&"> 6&4 <" 9&:4 95>&?5" ! *2F 5 9< : 5C5" 59! F. <"=5 :! 45! C& 31 &L 1*. L *3, <;=5 -"! &=-&<?! <; <&" -7 5C59=5 ! &&& *.2!*F* <D5: 8P! *1+ <9D5 ! (9 &&& ., <8" -"! -4" && FF2 <8" -":! 4-! C&! *+N 5"4-8:5! <B ! C&& .ME 56<9 <?5:! <7<C-89&5 -7 <?5: (! L& .3* & : 4- <9=-7 (-9 -"! .3*! .3. 95< 5B <9=-7 99<"! .N2! 12F! 121! 133! 13N! MFM! MNN! 21, &: ;-:&&-" &" 4- A- A4 -89 ! L&& .+ (8B- 4<"S A5=-9! .* &:&" 59C&56 6&4 =8":B-8! .1! .2 9-;-:= -<::<::&"<5 4&?! *+* &: <995: <"B 95=5<:5! *+1 95B <><&": ! **+ :A<;5:79-? 4- 9-5:<" =-9B:! *** &5:&" < J9<6= *** 56<9 ! -=-"5=! :5" J E ">8: - %855" =&I<J5 4! L& MFF 56<9 5"9 ! &" 9&>85: 6&4 (<9><95 -7 A- =<"B! &C *3 4 (5 485" 56<9 ! -7 9<W8<&9! C&&& .2. &9D! 5=5"! ?<9 9! &C F+, &9=&"> 95A5&C5: 4- 9-5:<" :! C&& **2 AA8;&5B J 4- 95"A4 9--;:! *3* < 459&"> -7E -9B:<! L .3* $ 5?; 5B :89;9&:5-7! .3. <; 895B J ">8:! L& 212 5 <D5" J 99<"! 21, &995=! -4"! C&&! 1.* -D5:=5 ! -4"! &:4-;-7 -"B-"! J89": 4595 &A:! & F1M -"59! <B ! L& F1* -9 ! 9 ! %855"@H ;9-A -9! < 9<"?-9E: 9&<=! C& F,. &:::55A4 -" 45 8;95?<A &==- -7 *22N! C&& 2F 5&I5B < " 659;! 3F -9 895B! <"B :5" 5"A5B -B5<4! 3M! .*. L5A8 5B! .F -89 -"! -9B! C& .N1 9<&5"! <C&B! J89" ! &C 21 9<">5! -9B! C F3* E 9<">6< :! $;&9<5! C& *NN" C&& F1M <C95! 1.2 C&&& 1F, 9<7-9B! JJ- -7! &&& .1F 9<4J->&5! C&:&-7 45 %855" -7 A- -! L&& 112$11, 8JJ:! -4"! 4&: ;<?;4=5 ! L& *22 5" - =&5 -659! *M, 9&AD=<"B! (9! L *N*! *NF 9-I&! &5 9-! &C 1., C ,, C& .FN

3?? 5 L& *+( )+
8<9 ! <B ? JA==<! KA& ,F 8>"&A: ;B <:
6&75 7-9 45 85 B =5"^-"! M*N 5:&>"5B
J 5&A5: 59 7-9 4&:' :-"! M*N! 2M=! L&& .N!
M* A-? :5 &-9 -9 45 A9-HC"! N
.$ 5 &$5 +/ $ > F $$* 5 &
@ # /.(35 / F / *%/* 5
.5 $.# . ,F / / *$5 . / ,F
8<9 ! :?-! -8" B 8J&> ! L& *,+
-5: -' A- =<"B! *,* (<B5 <9= -7
5";-L! .2N &:';-659! .,2 " 5"B:
-' B5: 9- (-9 -"! .3* &:' B5L 59& '
<"B 95<A459 ! .N. 9&">:' (-9 -"' 8;' -'
5=&"J89>4! .N2' (<B5 8D5 -7 5""-L!
12F! 121 5"-6:' 45 A<>L&5k 0&=' 9<"A5!
12M! 133! 13N! 1N+! 1N*! 1NF! M.+ 9&C5"'
-8 -7 A- =<"B! M.. ' "' -"B-"! M.+!
2.N "' 9<"A5! M.N! MF+ &:' A4<9<A 59
<"B B5< 4! MF. ! MFF
8<9 ! -9B <?5:! C&& '*+M! ***! **F! *..!
*.N! *3.! *N,! .+, 45 B5< 4$J5B -7
(<9 -7 8&:5! .1N! .M+' 5A=@:' -;&"&-"'
-7 4&?! .MF! .,M' 5" ' -' &"C& 5 (<9 '
%855"' -7 A- :' -'95 89"' -' A- =<"B! F.M!
FM*! FM. ' 4-:5"' J ' (<9 ' -"5 -7 459
A4&57 <BC&:59:! F2M! F,, ' (<B5 &58S
5"<" ' -7 45 -9B59! <"B <9= -7 (899< !
F,3! 1*2! 11F' 8"&:45:' 45 <9= -7
8" =5 ! 11M' "B 4\ 5=<9! 1N1' <?5B
A-?:&:-"59 -' :5 =5 45 :8AA5::&-"!
C&&& '*+M! **F! **1 5A&=@:' <":659! **1!
**M! *1N' "B5<C-89:' -' B&::8<B5 (<9
79-?' ?<99 &">' <9"=- ! .M*' 5 &95:' -'
-A4=5C5"' <:&=5! *,M' "' <9?:! *N+'
N' J<"B-"5B J 45 %855"' -7 ">S
=<"B! *NM' :A<;5:' &" -' ">=<"B! .+3!
.*+! .*' -5:' -' -"B-"! .*F &:S
-6"5B J ~&5 %855"! .*1! .*3' BC&A5
-7 49->?-9 -"! *.1! .FF! .1+! .1F "S
5"B5B < <&"B59 -7 4&?! .1N' 5 89":'
-' B&"J89>4! .2+' &:' ;-:&&-"! .NM!
U)X "B5<C-89:' -' <995: <=7-89! &L! .2!
578:5:' -46-=@:' <BC<"A5:! F1' 5<C5:'
A- =<"B! F2' "' -"B-"! F, "' <9&:!
*+F' &:'95 89"' 79-?' 9<"A5! *FF' &:'
A-"C59:<&-"' 6& 4 B-' &=C<! *F2' ;&"&-"'
-7 ">=&:4' :<5:?5"' <J-8'4&?! *FM! *F2'
BC<"A5:' -7 9<"A5 -' 4&?! *MF' &:'
&" 59C&56 6& 4 45 %855"! ! *M3' 5A-?5:'
5>5"! *2. <A&7&5:' A- =<"B! *23! *,+!
*N2' LA5=5"A5 -7/4&:'>-C59"?5"! *N,'
5A5&C5:' 45 <:D5 =5 59:! *NN' 95<A4
6& 4 (<&=<"B! .+*! .+,! .+3 .)' (*$'
..+! ..*! ... -75<:' B&5 <?&=-":' <'
<">:&B5! ..M! .12! .M*' 5"B:' 9<":=<S
&-":'-7 45 <:D5 =5 59:' -' =&I<J5 4!
.2.! .2,! .,M =&I<J5 4@:' =5 59 -' 4&?!
.,2 -5:' -' -9D! .3.! .31! .32' &:'
A-"C59:<&-"' 6& 4 =&-' 8D5 -7 -97-=D!
.3N! .N+' &:'95;= -' 45 A-?7&::&-"59:!
.N*' #5: ?&": 59! FFN' 8 8;-"' 4&:
B575"A5! F12' 9-B8A5:' 45 <:D5 =5 59:!
F1,' =-' -' ?89B59 4&?' -"' 4&:'95 89"!
F3*' -"79-" 5B 6& 4 599&A:' <"B 45
&:4-;' -7 -::! F33' &:' A-"C59:<&-"'
6& 4 45 8D-' -7 -97-=D <' <?; -"'
-! 1.F! 1F.' 4-' A-"C5" &-"' <' =<:S
>-6! 1F1! 1M,! 1M3! 12N! 12.! 12F! 13+!
1N1' &:B&&7&A8=&5:! M1,! M2+! 2M*' 5"B:'
45 <9= -7 -9 48?J59=<"B -' -A4=5C5"'
<:=5! MMF' &:';-:&&-"' &"' A-=<"B! M,+'
(89B595B! -C&56 -7 4&:' A<9559! 23*'
&:'78"59<=! L' .1! .M
8<9 ! -9B -4"! C&& F22
8<9 ! (< 456! <9= -7 5""-L! &C' ..N'
4 5""-L
8<9 ! (<9 E' 4 (<9 8<9'
8<9 ! -9B -J59 ! C&& F22' 79&5"B! <"B'
<BC&:-9 -7 -9B <9"=5 ! C&&& *.N! 322
L&'.3.
8D-= ! &9 4-?<:! C' 1MF! 1M1! 1M3 "'
95=<"B! C&&& F,F' &:' ;&9<A&5:! F,F! 1M.'
&:' <AW8<&" <"A5 6& 4 @ 5&=! F,1' =8'
;<&"! .1M! M..! 2.M' &: -9 -7 4&?!
E M..' &:' &" 5"B5B &"C<:&-"' -7 95=<"B!
M.,' L& 3M! *1+' <==:' <' =A<I<9! *1*!
.+2
89?&8:! <' <=<&:! &C' 1M1' 5 9<:' 9-"A4
:5A95 :! 1M3
8AA5::&-"! ">=&:4! 8"A59 <&" -7 =<6 -7! &'
*+3' 599-9 -7 <6<9 -7! **.' A -7! &&'
..+! ..1! ..M' 5A-"B 95<' A -7! &C'
F+F' B6<9B @:' B RC&A5 7-9! C' M++!
M+.! 2+1' 5J<5:&"' <9=&<?5"' <:' -'
45 :8AA5::-9 -7 =&I<J5 4! C&& 13*! 13.!
2++ E <=-@:' J--D -"' 45 :8AA5::&-"! C&&&'
3+' "L&5 -7 45 /;5-;=5 -7 ">=<"B!
*2N' &:A8::&-"':' &"' <9=&<?5"! ! F+M'
B<?:-"@:' J--D! F.*' 5:8=:' -7 45
8"A59 <&" -7 45 :8AA5::&-"! &L' *3N!
1*.' *31' 45 &:4-;' -7 -::@:' J--D!
.*.' A 7-9 A8 &">' -% 45 %855"' -7
A-:' 79J?' 45 :8AA5::&-"! 323
877-=D! 8D5 -7 4 9<"B-"' 95
8?;8<9 :=<6:' J57-95 45 57-9?<&-"! &'
*M
8;95?<A ! A -7! &&' F11$F12' 45 &=' -7
*MMN! C&&' 2F! 2F! 22' ;55A45:' &"' <9=&<S
?5"' 95:;5A &">' &! 22' 5$<""5L<&-"' -7
:8;95?<A -' 45 9-6"! ,2! ,,'
89=- J- 4 ' (A -""5=
8995 ! -9B' 4 -6<9B
8::5L! -J59' <BA=&775! <9= -7 4 <B$
A=&775! -J59
8 459=<"B! <9= -7! <AA-?;<"&5:' 45 %855"'
-7 A-:' -' "C59"5::! C&& 112
65<&">':&AD"5::! C' F2.

! 9! &:4-;' <&?59@:' A4<;=<&"!
&&&' 1.
' □ &#' *33



TP H

-=: 9- ;! &9 :6<=B! &L 2*F 0
--B! <AA-8" -7 95=<"B :2 L Xt
--B=&-8:A! &9 ? ! #&A5$ B ? &9<=! C& 2+*
--B:4<65! B6<9B! : -9 -7! L& . ,
--B: -AD! :A-"H &"' A489A4 -7! &&& .FF =&S
I<J5 4 < ! C&&& .N*
---=5"' ?<"87<A 895:! : < 5 -7 45! &"' 45
*2 4 A5" 89 ! & ,
-9A5: 59! <B 4<;5= < ! &&& .F3
-9A5: 59! -9B 4 -?59:5
-9?:! &5 -7! -;5"5B! 1*1
- -"! B6<9B! B5?<"B: 99<"@: <995: !
L&& *+1 &: =&75 &"' B<">59! *+2$*+3
&: B&77&A8= &5:! *+, AA<==5B! **+
- -"! 9 ! :5" -' <99<">5 45 ?<99&<>5
6& 4 "" -' -7 =-C5:! &&& 11*$11. %8- 5B!
&C .,3! F*.! FF+! F1*! F12! F1N (&:>&CS
&">: -7! &"' 4<9=5: # ! FM*! FM2! F, .! 1+M!
113! M+3! M.+! 2F*' C .F+ 5" -' 98:S
:5=:! FFM!F1*' -"C59:< &-"' -7! 6& 4 4<9=5:
! F1. " C& *F.! *1.! .++ &:A-C59: 8BS
=5 @: A-": ;&9<A ! 11* 5 59 -' &9 ?
5 95 -"' <: 5A-"B A-": ;&9<A ! 11N "' 45
">=&:4 9578>55:! 1MM &:A-C59: <' B5:&>"'
-"' <=<&:! 1M3 59A<?;! 2..' C&& F*
-5:' 6& 4 45 &:4-;-7 99<: -' 98::5=:!
F* 45 -">95::' -7 <? J9< ! 2+ &:'
95?<9D: -"' 4&=&;@:' A-"B8A ! .*, "B -"'
45 ;59&=-7 <' ;<"&:4 <9? &"' A- =<"B!
.*N "' <' A-?? &::&-"' -' 5"B 45 6<9 &"'
A- =<"B! .1+ 45 -"7595"A-K 98>5:!
C&&& 122
95AD&">7&9: 45<9B -7 &"' 8::5L! C .,F
9&- 45:=5 ! &9 4-?<:! 95:&B5" <' 98:S
:5=:! 4&:' &" 59C&56 6& 4 45 8A45:' -7
(&=<"' <J-8 5"9 # ! &&& .,,! F+M!
F+3$F+N! F12 &:' <BC&A5' <' W8<9 59 :5:S
:&-": &"' <?;:4&95! 1.3 &" :' <' 45
B&C-9A5 -7 "5 -7 =5C5:! 1N* : -9B
4<"A5=-9! &C 1NM &:' J<9J<9& -' "5
:A85! 2+1!2F* (<B5 <9= -7 -8 4<?;S
-"! # *+ 5;9&C5B -7 45 :5<=:! **! *$.!
*13! .M+ &:' B5< 4! .M2
9&- 45:=5 ! -? ! <9= -7 -8 4<?; -"!
&L 1*. 5?; :' -5:A<;5 <J9-<B! MF+
&:' 4-8:5 6< A45B! V ,+ 995: 5B! ,* '
&J59< 5B! ,M -&":' <' "56 A-":;&9<A !
*3, 995: 5B! .NM <9B-"5B! J8 <><&"'
5-?;9-?&:5B! L&! ,1$

9- 4! &9 4-?<:! :5" <: <A-??&::&-"59 &
-' 9A=?B! C&&& 21! MM
< ! &9 4-?<:! 4&:' =5<9"&">' <"B <AA-?$
;=&:4?5" :! &' *3, &:' ?&::&-"' -' ;<&"!
&&& .,* A4<9<A 59 -7 -""59! .3F!
M11 995: :' 9<"A5 -9 &"' <9&:! 1M3
8B&5"A5 k 6&4 4<9=5:' #!12+! 12.! 1,2
AA8:5B -7 95<:-"' J -""59! &C **1 !
=&5=5<:5B! **2
< ! &9 4-?<:! :-"' -7 45 <J-C5! C& *11
==&">4<?' <: =5! *1N! *M.' =5J5=:!
*MF! *M2! *M,! *2. 5<A45:' -8 46<9D
<"B 7&"B:' -"B-"' 9&B>5 J9-D5"! *2N! *,.
5=< :' <' 95" 7-9B! *,,! *,3 :' <D5"!
*3+ -?;9-?&:5:' =&I<J5 4! *N+ 9&5B!
.+F!.+1!.*2 L5A8 5B! .*, &:' 75==-6
A-":;&9< -9:' 95=5<:5B! F*F
A459=5 ! &==&<?! &"C-D59 -7:;&9& :! C *21
AD=&77-! -4"! 4&:' 5<9= =&75! && *F
?-"B4"?! >< 459&">' -7 45 A-??-":$<!
.+*
"B4<?! <; <&"! C 3+
:5?<"! 4-?<:! 4&:' A9&?5:! & *NN

! 9<"A&:! C&& F33 C&&& *NF 9S
95: 5B! C&& F33 "' 45 :59C&A5 -7 &4-
%855"' -7 A- :! C&&& *NF! *N1 5" -
E ;<&"! *N. 5:8= :' -7!4&:' ?&::&-"! . . ,$
. .N!! 9-6"5B! .F.
-9D! 9A4J&:4-;-7 4 5< 4
-9D < 45B9<=;=< 5&::85B &"' J<:5 A-&"! C
,.
-9D5! ?<: 59 -7 45 ?&" ! C .3.! F,*
-9D-! -6=<"B! B5=&C59: &;' 45 T8 ;45"'
7-9 :! L&& F..
-9D:4&95! A4<9<A 59 -7 45 >5" 9 -7! &&&!
N1 &:&">' &"!' *.F W &=>9&?<>5' -&
9<A5 &: 89J<"A5' &"! C .*M
-8>4<=: :<AD5B <"B J89" ! L& .*2! .*N
-8">! $C&' **M

! <D5"' J 45 ;<"&<9B:! L&
! M2
T-854! -=-"5=! D&=5B &9 -4"' -7 5:?-"B!
L&' .13
T8 ;45"! J< =5 -7! L&& *NF! *N1 45V7-9 :
-7! B5=&C595B! 8;' J -9D5! F..

&' #
P ' ! $ %P& '
' PP '

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